Developing Occupation-Based Preventive Programs for Late-Middle-Aged Latino Patients in Safety-Net Health Systems

Stacey L. Schepens Niemiec, Mike Carlson, Jenny Martínez,
Laura Guzmán, Anish Mahajan, Florence Clark

MeSH TERMS

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Latino adults between ages 50 and 60 yr are at high risk for developing chronic conditions that can lead to early disability. We conducted a qualitative pilot study with 11 Latinos in this demographic group to develop a foundational schema for the design of health promotion programs that could be implemented by occupational therapy practitioners in primary care settings for this population. One-on-one interviews addressing routines and activities, health management, and health care utilization were conducted, audiotaped, and transcribed. Results of a content analysis of the qualitative data revealed the following six domains of most concern: Weight Management; Disease Management; Mental Health and Well-Being; Personal Finances; Family, Friends, and Community; and Stress Management. A typology of perceived health-actualizing strategies was derived for each domain. This schema can be used by occupational therapy practitioners to inform the development of health-promotion lifestyle interventions designed specifically for late-middle-aged Latinos.

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Stacey L. Schepens Niemiec, PhD, OTR/L, is Research Assistant Professor, Mrs. T. H. Chan Division of Occupational Science and Occupational Therapy, University of Southern California, Los Angeles; schepens@usc.edu

Mike Carlson, PhD, is Research Professor, Mrs. T. H. Chan Division of Occupational Science and Occupational Therapy, University of Southern California, Los Angeles.

Jenny Martínez, OTD, OTR/L, is Assistant Professor of Clinical Occupational Therapy, Mrs. T. H. Chan Division of Occupational Science and Occupational Therapy, University of Southern California, Los Angeles.

Laura Guzmán is Project Assistant, Mrs. T. H. Chan Division of Occupational Science and Occupational Therapy, University of Southern California, Los Angeles.

Anish Mahajan, MD, MS, MPH, is Director of System Planning, Improvement and Data Analytics, Los Angeles County Department of Health Services, Los Angeles, CA.

Florence Clark, PhD, OTR/L, is Professor, Mrs. T. H. Chan Division of Occupational Science and Occupational Therapy, University of Southern California, Los Angeles.

The Patient Protection and Affordable Care Act (Pub. L. 111–148) has opened a window of opportunity for occupational therapy practitioners to implement prevention and wellness interventions in primary care, particularly in safety-net health systems that serve low-income, ethnically diverse populations (Hildenbrand & Lamb, 2013). Latinos are the fastest growing racial minority in the United States (Ennis, Ríos-Vargas, & Albert, 2011). Within this group, late-middle-aged (50- to 60-yr-old) Latinos with low socioeconomic status—a safety-net patient subgroup—are at high risk for developing chronic conditions that can lead to early disability (Liang, Xu, Bennett, Ye, & Quiñones, 2010).

Although the lifespan of Latinos continues to lengthen on par with that of non-Latino Whites, they have many more years of disability (Kuo, Villa, Aranda, & Trejo, 2009). Functional limitations in daily activities observed in Latinos commonly develop in late middle age (Liang et al., 2010) and are concomitant with health issues such as diabetes (Wray, Alwin, McCammon, Manning, & Best, 2006). Therefore, the ability to address early signs of disease and disability among Latinos approaching older age is a key health care challenge. Because Latinos demonstrate willingness to make lifestyle changes (Osuna et al., 2011) and because in late middle age, adulthood disease may not yet be advanced (Rajan et al., 2012), provision of occupational therapy health promotion (OTHP) programs in primary care may prove effective in offsetting disability and disease progression in this population.

In this article, we describe a qualitative study of the lifestyle domains and health-actualizing strategies that late-middle-aged Latinos who use safety-net services identify as critical for maintaining personal health and well-being. Having previously established that preventive occupational therapy cost-effectively slows declines associated with aging and improves health-related quality of life in older populations (Clark et al., 1997, 2012), we conducted this qualitative needs assessment to construct a foundational schema in support of a similar intervention to address the particular health risks and self-identified needs of this underserved patient group. The long-term goal of our research program is to demonstrate the effectiveness of a patient-centered lifestyle intervention delivered in a primary care setting to improve the health status of late-middle-aged Latinos. Moreover, we expect that other occupational therapy practitioners could use this schema to design OTHP programs for comparable patient groups and health care delivery systems.

Method

Participants

Participants were selected on the basis of the following criteria: (1) age 50–60 yr; (2) Latino race/ethnicity; (3) English- or Spanish-speaking; (4) active patron of Los Angeles County Department of Health Services (LAC–DHS) primary care institution El Monte, Edward R. Roybal, or H. Claude Hudson Comprehensive Health Centers; and (5) resident of Los Angeles County. Patients who receive safety-net primary care through LAC–DHS must have a family income lower than 133.33% of the federal poverty level. A list of potential participants who fit the criteria and were current patients of one of the three LAC–DHS primary care clinics was generated from the patient database. A bilingual research team member then conducted purposive sampling from this list to recruit participants who were stratified by gender, age (50–52, 53–55, 56–58, 59–60 yr), and facility patronized. Fifty-five patients were contacted, and their interest in the study and eligibility were determined. Eleven patients agreed to participate and completed the informed consent process.

Six Latino men and 5 Latino women (average age = 56 yr, standard deviation = 3.27) took part in this study. Seven participants completed the interviews in Spanish. Each participant was managing at least one chronic condition (e.g., obesity, stroke); all but 1 reported being diagnosed with prediabetes or diabetes. Time since diabetes diagnosis ranged from 8 mo to 10 yr, although those who reported a diagnosis were generally inexact or

uncertain about the time frame. Self-perceived health was relatively low; when asked to describe general health as *excellent*, *fair*, or *poor*, 6 responded “fair,” 4 responded “poor,” and 1 did not respond.

Interviews

Interviews based on a semistructured interview guide developed by the investigators were administered by a trained, bilingual, bicultural, doctoral-level, Latino occupational therapist. Each participant was interviewed twice, with data collection occurring between October 2012 and January 2013. The sample size was not predetermined. Instead, interviews were conducted until theme saturation; that is, until no new information under a thematic category could be obtained by additional data collection, coding, and analysis (Hyde, 2004).

Topical categories broadly included daily activities and routines, overall health, chronic disease, and strategies to maintain health. Interview questions were primarily open ended to allow participants to freely express their viewpoints. Participants were asked, for example, to describe a day from the previous week, highlighting how various activities, routines, involvement in family life, and self-perceptions about these activities affected their health. They were invited to describe their overall health, specific chronic conditions they were managing, and present or future health concerns. To improve consistency of the interview process and data dependability, all participants were questioned using the same general prompts (Graneheim & Lundman, 2004). Probing questions were used to ascertain specific details as needed (see Table 1 for interview structure). Field notes were recorded during all sessions. Interviews were audiotaped, transcribed by a professional company, and translated (if necessary) by trained bilingual staff. To optimize privacy and limit distraction, interviews were conducted in a quiet place, at either the participants’ homes or a location of choice.

Data Analysis

As each interview was completed, the first author (Schepens Niemiec) conducted an inductive content analysis of the qualitative data to identify patterns and regularities in the participants’ responses (Hsieh & Shannon, 2005; Sandelowski, 2000). She read each transcript twice in its entirety and revisited data to obtain greater detail to derive an initial set of codes. The codes were subsequently sorted and categorized into meaningful clusters. As more interviews were processed, codes and categories were adjusted, collapsed, or expanded to accommodate the new data (Sandelowski, 2000). Content from each interview was compared across the

Table 1. Summary of Interview Prompts and Domain-Specific Probing Questions, by Topic

Primary Interview Prompts	Sample of Probing Questions
General Health and Routines	
<ul style="list-style-type: none">• Choose a day from last week and describe your activities/ routines within that day.• Do you think your daily activities and routines affect how you feel?• Is there anything about your home or family life that affects your health?• What do you do to stay healthy long term?	<ul style="list-style-type: none">• Currently, do you have any concerns about your health?• How do you respond to your medical needs when you have health problems?• What challenges, if any, in your daily life prevent you from addressing your health problems or medical needs?• What types of health problems, if any, are you worried about for the future, even if you do not have these problems now?
Diabetes	
<ul style="list-style-type: none">• Do you/does anyone you know have diabetes?• Do you have any concerns that you may get diabetes?	<ul style="list-style-type: none">• What do you do to take care of your/prevent diabetes?• If your neighbor asked you to tell her what diabetes is, what would you tell her?
Obesity	
<ul style="list-style-type: none">• Do you have concerns about your body weight?	<ul style="list-style-type: none">• Are you currently doing anything to manage your weight?• Has your doctor talked about weight as a health concern?
Other Health Issues	
<ul style="list-style-type: none">• Earlier you mentioned that you have [____ diagnosis].	<ul style="list-style-type: none">• See <i>diabetes probing questions</i> and replace with stated diagnosis.
Work Wellness	
<ul style="list-style-type: none">• How would you describe your work?• Do you think your work has affected your health?	<ul style="list-style-type: none">• Are you satisfied with your work status or is this something you would like to change?
Medical Home Utilization	
<ul style="list-style-type: none">• Do you have one main doctor that you see when you have a health concern?• Do you use other health care agencies or community agencies for your health needs?	<ul style="list-style-type: none">• What do you like and dislike about the services you receive from your doctor?• What do you suggest to improve these health care services?• What would make these health care services easier to access?

Note. If questions were closed ended, they were followed up with the phrase “Tell me more about this.”

sample to determine commonalities, disagreements, and focal points and ultimately to construct a typology of participant-identified health strategies.

To ensure quality and rigor, interview transcripts in their original language were coded independently by the third author (Martínez), a bilingual doctoral-level occupational therapist trained in qualitative content analysis. The first and third authors met to compare codes for agreement and revise the initial typology of health strategies. The last author (Clark) reviewed and confirmed the finalized set of emergent domains and strategies. Finally, the first author regularly sought feedback from the fourth author (Guzmán), a member of the local Latino community and *promotora* (i.e., community health worker), who consulted throughout the data analysis and writing stages to ensure that the analysis, interpretation, and discussion were culturally sensitive and representative of participant experiences.

Results

Content analysis revealed six healthy lifestyle domains that participants identified as critical for their health and well-being and that an OTHP intervention could, therefore, target. Relevant passages, edited for clarity, were compiled to thoroughly develop unifying themes. Lifestyle domains,

participant-identified strategies to optimize health in each domain, and recommendations to address the domains and strategies within an OTHP intervention are presented in Table 2. The domains and strategies included in Table 2 are those that were discussed by multiple, but not necessarily all, participants and were most representative of the sample as a whole. The respective domains were not mutually exclusive; some strategies listed under one domain could have applied to another.

Weight Management

Achieving a healthy lifestyle by focusing on weight management was the most frequently discussed domain. Having attempted to lose weight and failed, 8 participants expressed their weight management goals in terms of a desire to simply maintain their current weight. They articulated several weight-management strategies, largely involving their diet and eating routines. One strategy included avoiding unhealthy food (e.g., soda, greasy food, red meat). Another involved altering food preparation practices such as baking instead of frying. A third was changing eating routines such as eating smaller amounts more consistently and avoiding eating later in the evening.

Though diet-related efforts were the most common strategies for weight control, participants also reported the benefits of physical activity (PA) inherent to their daily

Table 2. Parsimonious Typology of Identified Health Strategies and Sample Recommendations for an Occupational Therapy Health Promotion Intervention, by Healthy Lifestyle Domain

Health Strategies	Sample Recommendations
Weight Management	
<ul style="list-style-type: none"> • Modifying food consumption and preparation • Embedding physical activity into daily routines • Walking at low to moderate intensity levels 	<ul style="list-style-type: none"> • Engage patients in the process of substituting healthier ingredients when preparing culturally preferred foods • Use supportive modalities (e.g., activity monitors) to increase patients' understanding of relevant activity parameters • Encourage more exercise participation by addressing nuanced topics (e.g., how physical activity can control appetite)
Disease Management	
<ul style="list-style-type: none"> • Modifying and regulating diet • Altering activities and routines to manage symptoms • Using both traditional and nontraditional modalities to maintain health 	<ul style="list-style-type: none"> • Address multiple nutritional strategies to manage symptoms • Introduce energy conservation and healthy activity pacing • Incorporate tolerant, respectful, and educational messages regarding the safe use of alternative treatment modalities
Mental Health and Well-Being	
<ul style="list-style-type: none"> • Regularly engaging in meaningful and productive activities • Engaging in spiritual activities • Embracing positivity in the face of negative situations 	<ul style="list-style-type: none"> • Embed health-promoting practices within meaningful and productive activity • Include spiritual activity as appropriate • Frame educational messages positively
Personal Finances	
<ul style="list-style-type: none"> • Accepting and providing financial support • Responding to health needs on the basis of available funds • Engaging in work, despite personal circumstances or beliefs, to decrease financial strain and maintain well-being 	<ul style="list-style-type: none"> • Provide a low-cost, convenient intervention • Emphasize practical, inexpensive, health-promoting practices • Consider a multitiered service delivery model in which occupational therapy practitioners supervise community health workers who serve as the frontline interveners
Family, Friends, and Community	
<ul style="list-style-type: none"> • Accepting and providing familial support for health-related choices and activities • Relying on family and friends for transportation necessary to complete health-related tasks • Sharing health-related knowledge among family, friends, and the community 	<ul style="list-style-type: none"> • Incorporate socially based and family-oriented activities • Provide opportunities to enter rewarding relationships and give back to the community • Use community resources and stakeholders in program implementation
Stress Management	
<ul style="list-style-type: none"> • Adapting or selectively choosing activities to minimize stressful incidents • Using activity as a form of coping or distraction • Using family as a source of stress relief and support 	<ul style="list-style-type: none"> • Include education to inform patients about the advantages and disadvantages of coping and stress management strategies • Introduce patients to stress management techniques with which they are unfamiliar (e.g., mindfulness, progressive relaxation)

activities: “And the good thing about my routine is that I’m always walking, I’m always carrying something, always moving.” The majority of participants ($n = 8$) reported walking as their only direct PA for weight management. They specified walking as brief and moderate to low in intensity: “I would try to get up and walk off my meals . . . it would be a short walk up to the top of the street, or a walk around the block.” One participant who seemed to engage in the most deliberate PA of the group explained that she goes to the gym 3 times/wk and occasionally attends yoga class.

Disease Management

Second to weight management, chronic disease management was a top priority. Nine of the 11 participants were diagnosed with prediabetes or diabetes, which was therefore the focus of many disease management practices mentioned. Reducing sugar intake by limiting tortilla and rice consumption was the most commonly reported dietary change: “We’ve got to implement a lot of vegetables in

there, and less rice, and less tortillas. . . . My husband is diabetic and he’ll have, like, 12 [tortillas] with every meal.” Other participants ceased adding sugar to beverages and chose juice or sugar-free drinks. One man recounted how his sugar intake from soda contributed to his disease: “Sugar in soft drinks has contributed to my obesity and . . . diabetes because I was uneducated on how much sugar I was drinking [each day]. Sometimes I would drink anywhere from one . . . to one-and-a-half 2-liter bottles of soda [per day].”

Participants seemed to recognize the links among diet, symptom management, and physical well-being. One person explained how it is important for him to regulate what he eats so he could avoid the consequences of glucose-level irregularities. “[If] I don’t watch my sugar . . . my pressure rises, I get dizzy, or feel bad. . . . I have to control my food every day . . . so as to have a better quality of life.”

To remain symptom free or avoid exacerbating disease, participants modified their daily activities. Some limited the

amount of activity in which they engaged: “We walked a little, not much because I get tired. . . . More or less I know about how long I walk so I do not get tired.” Others set aside time to rest after activity completion: “Today I come from my work and you see that [I am] very tired. . . . The first thing I do is take a shower, eat and rest.” Still others adjusted their routines: “Because I’m diabetic, I know the importance of trying to feed myself every few hours. . . . [My daughter] is on a totally different schedule. . . . So, I’m making maybe two different types of meals.”

A few participants reported that they monitored their levels of disease-related indicators (e.g., blood sugar). More often, however, they sought out medical information and care—whether from formal or informal sources—to actively manage their diseases. Each described recent visits to primary care centers to manage a primary condition: “[The doctor] told me that every 6 months she would see me. . . . Anything I have that is related to my [diabetes]—that the medicine isn’t helping—I can come here to her.” During conversations about doctor visits, participants often described the importance of strategically navigating the health care system to obtain desired care (e.g., arriving several hours early for appointments).

Other participants also sought help from friends and family to manage their diseases. Advice obtained from these sources typically included recommendations for nontraditional remedies: “These [aloe vera and cactus] pills . . . will drop my blood sugars by 50 points. That’s a lot. Not even the medicine the doctor gives me does that.” Only 1 participant mentioned that he uses the Internet to find information to help him manage his symptoms and disease.

Mental Health and Well-Being

Another important domain the participants addressed was maintaining mental health and well-being. Maintenance of well-being frequently involved consistent engagement in meaningful and productive activities. One woman found enjoyment and personal fulfillment through domestic tasks: “I make good meals because I know how important it is. . . . I’m going to go clean the kitchen now. . . . I need this for me.” Another man explained the purpose of tinkering with his car: “I change tires, change oil, I get under the car—with difficulty, but I do it because it helps me a lot, it helps me to be active, to be alive.” Several others discussed engagement in spiritual activities (e.g., praying, reading religious texts) as a means to achieve wellness: “I feel very . . . relieved in talking to God . . . [and] that everything comes out ahead with faith.” Notably, regardless of the activity described, all participants

stressed that regularly engaging in such activity was simply a way of life and fundamental to one’s well-being.

Living with a positive attitude and outlook despite the challenges of chronic disease was another strategy participants endorsed to stay mentally healthy. This approach was typically tied to faith and spirituality. One man explained, “The quality of life changes a lot when you have this type of illness, but what I try to do is to . . . not let myself get down.” He continued, “But when a disease is more difficult, well what you have to do is put your best face forward, and as I said, it’s the mentality of each patient [that is] very important, as is having faith above all else.”

Personal Finances

All participants mentioned financial stability as a domain that greatly influences health. Unlike the other domains, however, this domain was discussed negatively. Participants determined very few strategies as ideal remedies to their financial concerns. Several participants relied on immediate family for financial assistance. Doing so, however, routinely evoked feelings of personal discomfort and dependence: “I don’t feel comfortable [being unemployed] because I feel like I don’t have money to spend on what I want. . . . [My] son is buying me clothes and shoes . . . it really isn’t his job to clothe/care for me.” When possible, participants extended financial assistance to family members, even when difficult: “Another stress is that I send [my mother] . . . money every month so she is calm and secure and so I am calm and secure in the fact that I am helping her.”

Compromising health-actualizing habits because of financial constraints was another common occurrence. One participant vividly described how he was forced to prioritize paying rent over buying food because of limited income. This decision had deleterious effects on his personal health: “I have nothing to eat right now. . . . We were paying the rent and these past months I could not pay it. . . . Since December, I have not bought food. . . . I am very thin.” Another man explained that one’s ability to eat healthy foods is dictated by existing funds; without sufficient funds, one’s health suffers: “When you don’t have a lot of money, you tend to go to fast foods. . . . I gained a lot of weight always eating processed foods.”

Engaging in some type of work, whether formal or informal, and despite one’s personal circumstances or cultural beliefs, appeared essential to reducing financial strain and maintaining overall well-being. For instance, one gender-unique issue expressed by female participants was the internal conflict between a desire to stay at home

to care for family and the financial necessity to work: “[In o]ur culture, we are there for our kids. My mom was a stay-at-home mom. She never worked . . . and it was real[ly], real[ly] hard for me to leave [my children] to go to work, but I had to do it.”

Family, Friends, and Community

The majority of participants described relationships and interactions with family and friends as prominent factors contributing to a healthy lifestyle. The most prevalent health-promoting strategy adopted within this domain was engagement in activity as a family unit: “I leave in the morning to walk . . . with my wife. And then later . . . I go out with [my grandchildren] to play, go bicycling, try to be well physically.” Other family and socially oriented activities included talking to and helping others, attending family celebrations, going out to eat, and dancing at clubs.

Likewise, family and friends were regarded as a health resource and source of support and motivation to engage in healthy activity: “I control [weight] with the help of the family, with my wife by the way she cooks.” Transportation necessary to fulfill health-related tasks such as attending doctor appointments or picking up medication was almost always provided by family and friends. When participants received support, they often reciprocated. For example, 1 participant explained that his daughter provides his wife and him with food stamps and in return they take care of their grandchild. Commonly, participants gave back not only to their families, but also to the community. One participant explained how a strong community supports health: “The community has helped me a lot because sometimes I get to talk to other people and say ‘Go to this place’ or ‘Go to the other place.’ [T]hat way people can help [each other].”

Participation in familial and social activities brought profound enjoyment to participants’ lives: “When family comes and we get together, I enjoy my grandkids and I’m going to be happy. . . . I enjoy every moment.” Another participant expressed similar feelings: “[My granddaughter] keeps me going. . . . [She] and I—we go window shopping. . . . I’ll come to the park with her. We’ll go to the library. . . . I’m happy. My health—I feel good.”

Stress Management

Some respondents openly discussed daily stress management. They viewed it as important to maintain health, avoid symptom exacerbation, and reduce risk for future disease. One man recommended, “Be[ing] at peace, and not getting angry . . . it generates better health . . . and obviously alleviates the risk of diabetes.” Participants

noted a variety of stressors in their lives, ranging from work and financial strain to chronic illness management and immigration status, and they identified the stress’s physical consequences. Several participants suggested that stress could worsen symptoms of their chronic conditions: “When you get mad, your sugar goes up. And where do you end up? The hospital.” One woman explained that stress exacerbates her arthritic pain: “[W]hen I get stressed my left arm starts hurting. . . . [W]hen I get upset . . . the pain gets more intense.”

Participants discussed several strategies ensconced in activity to combat stress. For instance, some chose to carry out activities more slowly: “I calm down, and I do the things that I have to do, just not as fast . . . with more pauses.” Some actively removed themselves from escalating situations, whereas others avoided stressful activities altogether: “[W]hen my husband begins to complain, now I just ignore him.” Support from family or friends was also used as a means for stress relief, such as engaging in long conversations to vent concerns with members: “That’s when I need to talk to someone, because I’m the type—I hold things in and it’s not good.”

Leisure and social activities were described as one example of opportunities for distraction and to keep busy: “[I] go outside, go to the park . . . go window shopping . . . to distract myself . . . [from] all of my problems.” In contrast, another participant described a solitary activity that accomplished these aims: “I try to distract myself, do activities, and not remember what I have. Things that give [me] my own therapy. For example, I am making a doily by hand.”

Discussion

Current best practices for intervention design emphasize the importance of stakeholder engagement (Lobb & Colditz, 2013). Practical reasons for taking patient perspectives into account in shaping OTHP session content, process, and structural elements include enhancing intervention adherence, ensuring the focus is important to patients, maximizing the likelihood that delivery is practically feasible for the targeted population, facilitating culturally competent programming, and ultimately increasing the likelihood of intervention efficacy (Frank, Basch, & Selby, 2014; Whittemore, 2007). Our study findings resulted in a patient-centered schema that can be used to provisionally identify key components of OTHP interventions tailored for low-income, late-middle-aged Latinos served in health care safety-net systems. The schema (Table 2) specifies six healthy lifestyle domains; delineates a parsimonious typology of corresponding,

self-identified strategies to promote health; and includes samples of occupational therapy–centric recommendations for incorporating the domains and strategies into an OTHP intervention. However, it is expected that occupational therapy practitioners will draw on emergent research evidence to complement and expand the schema to further refine and elaborate on intervention designs.

Our review of recent studies on healthy lifestyle practices revealed that in the current study the most frequently mentioned domains and strategies were largely consistent with those identified in the literature. For example, our participants' perspectives on what constitutes a healthy diet generally reflected national dietary guidelines to increase fresh fruit and vegetable intake and decrease simple sugar and fat consumption (McGuire, 2011). However, in some cases, as noted later, it was clear that their practices were not sufficiently robust or were poorly aligned with generally accepted health guidelines. In other cases, ostensibly culturally specific strategies were mentioned as key to the participants' health and well-being. In all cases, however, participant responses centered on health as an ongoing occupational endeavor, which in turn unveiled distinct opportunities for occupational therapy–based intervention.

Weight management as a self-care activity was the most frequently mentioned domain, with the majority of participants expressing frustration with achieving weight loss. In fact, many had become complacent with their current weight and refocused efforts simply on weight maintenance. Recent studies have indicated that diet alone is less effective in achieving weight loss than a combination of diet and exercise (Goodpaster et al., 2010). Although the participants appeared to understand this optimal approach and claimed to enact healthy dietary practices, only 1 indicated that she regularly engaged in an ongoing PA routine.

The majority identified sporadic short walks around the neighborhood as their most intensive form of exercise. Many participants mentioned regularly engaging in other PAs inherent to daily routines such as performing light chores. In short, the participants appeared to be typical of late-middle-aged Latinos, who do not regularly meet the minimum national recommendation of at least 150 min/wk of moderate-intensity PA (Marquez et al., 2011; U.S. Department of Health and Human Services, 2008). Moreover, their perspectives were consistent with those identified by midlife Latinas who conceptualize PA as all movements required to complete daily tasks (rather than rote exercise) and consider such activities sufficient to meet minimum PA requirements (Im, Chee, Lim, Liu, & Kim, 2008). Given this pattern of findings, the use of supportive

modalities (e.g., activity monitors) may increase treatment recipients' understanding of relevant parameters such as activity volume and improve their overall PA levels (Rosal et al., 2011). It may also be possible to encourage greater exercise participation by addressing more nuanced topics such as the ways in which PA can control appetite and eating behaviors.

Participants' responses to interview questions regarding food intake and preparation indicated they possessed foundational knowledge of generally healthy food types—particularly those that could decrease their unique health risks. Research has shown that acculturation level may play a role in dietary profiles and habits, such that less-acculturated Latinos have greater fruit and vegetable intake and lesser fat intake than more-acculturated Latinos and non-Latino Whites (Neuhouser, Thompson, Coronado, & Solomon, 2004). Because only 1 participant was native born in the United States, this factor may partially account for their reported foundational knowledge of generally healthy foods and concomitant behaviors. Nevertheless, we did not assess participants' actual eating patterns.

If an occupational therapy practitioner finds that healthy dietary practices need improvement or reinforcement, studies have suggested that people are most likely to adopt health-promoting practices if they experience their beneficial effects over time and repeatedly practice the behaviors (van't Riet, Sijtsma, Dagevos, & De Bruijn, 2011). Providing experiences that showcase healthy dietary behaviors may be a powerful means to increase adherence to healthier diets, a strategy fully within the scope of occupational therapy practice. For instance, Osuna et al. (2011) not only used traditional Latino ingredients in food preparation activities but also introduced less familiar foods (e.g., seafood) that participants could try and gradually incorporate into their diets. Engaging patients in the process of substituting healthier ingredients when preparing culturally preferred foods and then allowing them to taste these modified alternatives may also be an activity that effectively promotes healthy diet implementation.

As in the case of dietary intake and exercise, strategies participants used to manage their chronic conditions within the context of daily occupations—although in general aligned with accepted medical recommendations—were neither intensive nor comprehensive. For example, consistent with Fitzgerald, Damio, Segura-Pérez, and Pérez-Escamilla's (2008) findings, our participants only mentioned restricting sugar consumption to manage diabetes while omitting other important components such as salt intake. Therefore, in designing OTHP programs for this population, it will be important to address a wider array of nutritional strategies to manage symptoms.

Likewise, the approaches participants used to modify activities and routines to manage their chronic conditions were not always optimal. For example, several of the female participants indicated that they had adjusted meal preparation routines and were subsequently burdened with double the workload. One woman reported preparing separate dinners each night—one to satisfy her husband's tastes and another aligned with her low-sugar diet. As expected, she indicated she was exhausted from the cooking demands. In such cases, patients from this demographic group may benefit from an OTHP program that addresses energy conservation and activity planning. Also, familiarizing patients with recipes that both align with individual dietary needs and appeal to the whole family might be another valuable strategy to include in an OTHP program.

It is interesting that many participants described spontaneously pacing their activities to avoid symptom exacerbation. To our knowledge, this adaptive behavior has not yet been studied in our unique demographic. However, frequent use of activity pacing has been found in women who experience high levels of osteoarthritic symptoms (Murphy, Smith, & Alexander, 2008). Although this strategy may have beneficial effects, its described implementation gave cause for concern. Specifically, rather than pacing their activities in advance to avoid symptom onset, participants paced activities only after symptoms (e.g., pain) arose. In several cases, this oversight led to excessive activity restriction. This circumstance is particularly disturbing because remaining sedentary for extended periods is associated with numerous deleterious consequences such as obesity and poor cardiovascular and psychosocial health (Tremblay, Colley, Saunders, Healy, & Owen, 2010). Proper instruction in pacing, especially that which is tailored to a person's usual activity patterns (Murphy, Smith, & Lyden, 2012), may be an important component of an OTHP program.

We also noted that none of our diabetic participants reported adequately monitoring their blood glucose levels or blood pressure. In a similar sample of low-income, Spanish-speaking Latinos, Levine et al. (2009) found that Latinos monitored their blood glucose levels significantly less than Blacks and Whites. Fortunately, through culturally tailored lifestyle interventions, the apparent dearth of self-monitoring behaviors in underserved Latinos can be improved (Spencer et al., 2011).

The purposes of our interview did not include direct extraction of information about culturally specific occupations. Nevertheless, a few seemingly culturally driven

health practices and strategies emerged as important findings from content analysis and may be useful in rendering an OTHP intervention culturally sensitive for Latino patients. *Familialism* (a strong identification and attachment to family) and *allocentrism* (the good of the collective over the individual) are salient characteristics of the Latino culture (Marin & Marin, 1991). Not surprisingly, our data indicated that the participants conceived of family, friends, and their community as having a great impact on their well-being. In fact, references to family, friends, and community permeated all six domains. For example, activity engagement was described as an opportunity to spend time with others or to jointly partake in health-promoting occupations. Participants also relied on friends and community involvement to enhance their well-being, and although they valued physician recommendations, they were equally attentive to advice from friends and family.

Yet another apparently culturally driven health practice involved the use of both traditional and non-traditional modalities to maintain health (e.g., use of cactus pills to manage diabetes), relying on a culturally framed hybridization of conventional and unconventional health practices characteristic of the Latino population (Shedlin et al., 2013). Considering the implications of these findings, the schema we constructed suggests that OTHP intervention design may benefit from accounting for these particular cultural practices by (1) taking advantage of community resources; (2) incorporating socially based and family-oriented activities; (3) providing opportunities to enter rewarding relationships and give back to the community; (4) utilizing community stakeholders in program implementation; and (5) incorporating tolerant, respectful, and educational messages regarding the safe use of alternative treatment modalities.

In analyzing the data, we were particularly impressed with the extent to which the participants perceived everyday occupations as key to their health and well-being. This perception suggests that they may be predisposed to respond positively to multifaceted, occupation-based health promotion interventions. Notably, our participants foregrounded activity meaningfulness as key to their emotional and physical well-being. For example, they categorically described the deeply felt benefits of their spiritual activity for various components of their health-related quality of life. These findings are consistent with prior research that has revealed a strong tie between participation in personally meaningful and spiritual activities and psychosocial well-being (Eakman, Carlson, & Clark, 2010; Lawler-Row & Elliott, 2009).

Unlike typical health promotion programs that concentrate exclusively on diet and exercise, our findings suggest that OTHP programs delivered in primary care safety-net settings may be particularly efficacious if they are designed to capitalize on the profession's focus on occupation; facilitate the embedding of health-promoting practices within meaningful and productive activity; and, as appropriate, include spiritual activity. Moreover, the participants stressed the necessity of maintaining a positive outlook in the face of health challenges. Concentrating on framing educational messages positively may consequently maximize the likelihood of healthy behavior adoption by patients from this demographic. For example, instead of warning patients of the dangers inherent in sedentary behavior, emphasize the beneficial effects of staying active.

Our data suggest that to focus on activity participation without pointedly addressing stress management would not be sufficiently responsive to the self-identified needs of this patient group. Consistent with Hilton, Gonzalez, Saleh, Maitoza, and Anngela-Cole's (2012) findings, our participants indicated that stress (caused by such concerns as work uncertainty, financial strain, and unpredictable disease changes) greatly compromised their health and occupational engagement. The importance of including a stress management component in an OTHP program for this population is underscored by evidence that stress is linked to health outcomes and that minority populations of low socioeconomic status are at especially high risk for experiencing the negative health consequences of stress (Thoits, 2010).

Although the participants indicated that they were managing their stress largely through spiritual practices and social participation, some techniques they used may not have been necessarily optimal for health promotion (e.g., withdrawal). For this reason, it may be helpful for an OTHP program to include an educational component to inform patients about the relative advantages and disadvantages of various coping and stress management strategies. In addition, introducing late-middle-aged Latinos to healthy and perhaps less commonly known stress management techniques such as mindfulness or progressive relaxation might be one way to complement the techniques that they already use.

Finally, any OTHP intervention designed for this population should account for their financial hardships and constraints. All of our participants were living in poverty and had at times compromised their health and well-being to provide family necessities (e.g., shelter, food). It is therefore crucial that OTHP interventions provided in safety-net health care systems be low cost and conve-

nient and emphasize practical and inexpensive health-promoting practices. Moreover, it may be helpful to conceive of a multitiered service delivery model in which occupational therapy practitioners supervise community health workers who serve as the frontline interveners to decrease costs of treatment sessions.

Limitations

This study has several limitations. Because of the qualitative methodology we used and the nonrandom sample of late-middle-aged Latinos whom we purposefully targeted, our findings are not generalizable to other late-middle-aged adults, such as those with high socioeconomic status. In addition, our use of a convenience sample resulted in a group of patients who were willing to discuss their health behaviors. This selection procedure excluded those who were not comfortable being interviewed about their daily health practices or who were not able to physically endure an interview. Such excluded people might have identified different health domains of concern (e.g., community mobility, end of life). Another limitation is that the participants might have incorrectly identified strategies that do not, in fact, promote health. Finally, the translation and transcription process might have influenced or altered how the participants' testimonies were conveyed and understood.

Implications for Occupational Therapy Practice

Content analysis of data generated through this study resulted in a schema that our investigative team is using as the basis for an OTHP intervention for low-income Latinos who receive their primary health care through a large, public safety-net system. We have made this schema available to the broader community of occupational therapy practitioners who are interested in designing comparable interventions for delivery in public health systems. The most important implications of this study for practice are as follows:

- A data-based schema has been generated that can be used by occupational therapy practitioners as a foundation for designing patient-centered OTHP interventions.
- The subjectively valued domains and strategies we extracted can be readily expanded into learning modules by searching the literature for evidence-based best practices and incorporating them into session protocols as needed.
- The detailed description of self-identified health concerns of the late-middle-aged Latino population presented can enrich the understanding of all occupational therapy practitioners working with this demographic.

- The findings demonstrate the need for sophisticated clinical judgment in assessing the complexity of issues that affect the health of this population. ▲

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