



Factors Influencing the Participation of Middle-Aged and Older Latin-American Women in Physical Activity: A Stroke-Prevention Behavior

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Despite the known benefits of regular physical activity for preventing stroke and cardiovascular disease, middle-aged and older Latin-American women continue to be physically inactive and demonstrate a high incidence of obesity. Ethnographic methodology was used to explore factors that influenced this health behavior in 25 Latin-American women. Perceptions of health, the health activities in which they engaged, and the factors that influenced their participation in physical activity comprised the three categories of responses. Facilitators and barriers were identified as the two primary categories and were further sorted into intrinsic or extrinsic factors. Conclusions of this study were that these Latin American women, despite multiple role demands and other barriers, participated in some form of physical activity; however, culturally sensitive strategies are needed to promote sustained physical activity in this population.

KEY WORDS

*barriers
cultural strategies
facilitators
Latin-American health
physical activity*

Despite the purported benefits of regular physical activity for reducing morbidity and mortality caused by chronic diseases, such as stroke and cardiovascular disease, a large proportion of older adults, especially women, remain physically inactive (Kamenimoto, Easton, Maurice, Husten, & Macera, 1999; Speck & Harrell, 2003). Latin-American women are reportedly less physically active than other ethnic groups (Eyler et al., 2002; Los Angeles County Department of Health Services & Public Health [LACDHSPS], 2000; Melillo et al., 2001; Thom et al., 2006).

Latin Americans are the fastest growing minority in the United States (U.S. Census Bureau, 2003). There are approximately 14 million Latin-American women in the United States who represent a myriad of subgroups including Mexican Americans, Puerto Ricans, Cuban Americans, and Central Americans.

Mexican Americans between the ages of 45–74 are at higher risk for stroke and other vascular diseases than non-Latin-American Whites (American Stroke Association [ASA], 2004). According to the ASA (2004), the reported mortality rates related to stroke are 38.6% for Latin-American women and 44.3% for Latin-American men. Two of the risk factors contributing to this increased incidence of disease are obesity and physical inactivity. According to the ASA (2004), 71.7% of Latin-American women, specifically Mexican-American women between the ages of 20–74, are overweight with a body mass index (BMI) greater than 25.

Latin-American culture has been studied extensively; however, there is a paucity of literature

regarding middle-aged and older Latin-American women's health practices and the factors that influence their participation in stroke-prevention behaviors, such as physical activity. The purpose of this study was to explore the factors that influence middle-aged-and-older Latin-American women's participation in physical activity.

Literature Review

Physical activity is described in the literature as actions performed with the intent or purpose of increasing one's fitness or well-being. Other definitions were found to include daily leisure activities and normal activities of daily living. Current guidelines recommend that health benefits are achieved with moderate activities 30 minutes daily at least 5 days a week (Goldstein et al., 2006; Lee, Folsom, & Blair, 2003; Sacco et al., 2006). Evidence linking regular physical activity and its related benefits of lower blood pressure, weight control, increased circulation, and increased glucose tolerance and subsequent reduced stroke risk is available in the literature (Sacco et al.). The most recent guidelines reveal that people who are moderately-to-highly active have a 20%–27% lower risk of stroke or stroke death than people who are sedentary or physically inactive (Goldstein et al.; Lee, Folsom, & Blair; Sacco et al.).

Facilitators

A facilitator has been described as synonymous with benefit (Melillo et al., 2001). Lindberg and Thompson (2001) define it as "that which makes easier or

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Key Practice Points

1. Latin-American women have a high incidence of stroke related to obesity and hypertension.
2. People who are moderately to highly active have a 20%–27% reduced risk of stroke compared with people who are physically inactive.
3. Cultural beliefs regarding the woman's role in the Latin-American family should be considered when developing strategies to promote physical activity.

motivates" (p. 283). A plethora of facilitators of physical activity were identified in the literature, including strong social support, high self-esteem, positive mental attitude, health information, and affordable, accessible health activities.

Social support, including family, friends, peers, neighbors, and coworkers, were identified as "supportive others" who provide encouragement, transportation, fellowship during exercise, and, in some cases, financial assistance (Belza et al., 2004; Nies, Vollman, & Cook, 1998; Zhan, Cloutterbuck, Keshian, & Lombardi, 1998). A support system was found to be integral to Latin-American women's participation in regular physical activity. "Cultural unity" or "getting together as Latinos, to speak our own language and to be taught to the importance of exercise" was cited as being important to Latin Americans (Melillo et al., 2001). Researchers also noted a correlation among spirituality, a strong faith in God, and a positive attitude among Latin-American women and their participation in regular physical activity (Belza et al., 2004).

The availability and affordability of community-based exercise activities also influenced the participation of Latin-American women. Walking was the most frequently reported physical activity; in part due to issues of economics and accessibility (LACDHSPS, 2000; Melillo et al., 2001). Belza and Baker (2000) summarized the need for such activities by stating, "Wellness is more attainable if services and providers are located in places where people naturally congregate or have easy access" (p. 13).

Barriers

Factors that hindered or inhibited middle-aged and older women from participating in physical activity or exercise were as varied as the facilitators. Lack of social support, low self-esteem, environment, effects of chronic illness (such as dizziness, pain, fatigue, and fear of falling), financial issues, and lack of health information were all found to influence

this population's participation (Belza et al., 2004; Kamenimoto et al., 1999; Morgenstern, Steffen-Batey, Smith, & Moyé, 2001; Morris, Ross Kerr, Wood, & Haughey, 2000). Certain ethnic groups, such as Latin Americans and African Americans, were found to be more sedentary or physically inactive than others (Eyler et al., 2002; Kamenimoto et al., 1999; Lee et al., 2003; LACDHSPS, 2000; Zhan et al., 1998). Researchers also noted lower education levels and distrust in the healthcare system as barriers to practicing stroke-prevention behaviors, such as regular exercise, in this population (Morgenstern et al.; Smith, Risser, Lisabeth, Moyé, & Morgenstern, 2003).

Melillo (2001) found that Latin-American women's participation in physical activity was hindered by feelings that it was inappropriate, especially for the older Latin-American women, to engage in certain exercises for fear of illness or exacerbating an illness, such as asthma or heart disease. Another barrier specific to this population was the multiple role demands related to child care, spousal needs, and household chores, which all reduced the amount of personal time available for physical activity (Heesch & Masse, 2004; Mein & Winkleby, 1998).

Method

An ethnographic research design was used to study the factors that influence the participation of middle-aged and older Latin-American women in regular physical activity or exercise, which is a stroke-prevention behavior. Ethnography includes participant observation, which consists of social interactions between the observer (researcher) and the participants in their own environments.

Instrument

The instrument used to examine the factors influencing behavior—an open-ended questionnaire—consisted of 13 questions about health, the women's daily routines, and their perception about the benefits of physical activity and factors that facilitate or prevent participating in regular physical activity. To ensure content validity and clarity of the queries, a small pilot study was conducted with three older Latin-American women volunteer participants. The women found the questions to be clear and appropriate for the intended audience.

Sample

The sample comprised 25 middle-aged and older community-dwelling Latin-American women who were divided into two cohorts: women 40–60 years old were assigned to the middle-aged group, and women who were 61–85 years old were placed in the older cohort. All of the participants were

born outside of the United States (in Mexico, Puerto Rico, or Central or South America) and had immigrated. The women all spoke Spanish as their primary language and were able to participate in normal activities of daily living, including walking and other physical activities (Table 1).

The participants were recruited from the local American Heart Association (AHA)/ASA's El Club de Caminar (walking club) and from local community centers in a predominantly Latin-American Southern California community (U.S. Census Bureau, 2007). Potential risks and benefits were explained to all participants in Spanish or English and written informed consents were obtained. The study received approval from an institutional review board before the study was initiated.

Data Collection

The interviews were conducted in various locations—in the participants' homes, neighborhood community centers, or the participants' workplaces, per their request. The majority of interviews were conducted in Spanish; however, three were done in English (at the request of the participants who were bilingual). Participants' nonverbal behaviors were noted and recorded during the interview. The audio taped interviews were transcribed verbatim by a bilingual transcriptionist into Spanish and then into English.

Data Analysis

Data analysis was performed concurrently with data collection. The transcribed data were analyzed line by line for the emergence of common themes. In addition, field notes were organized and analyzed. In-depth analysis revealed categories and themes. These themes reflected the social and cultural aspects of these Latin-American women's lives relevant to their perceptions of health and exercise. The themes also depicted the intrinsic and extrinsic factors that influenced the participation of the Latin-American women in regular physical activity. Their perceptions about health were reflected in their daily lives, their normal daily activities, and in the health behaviors in which they engaged.

The two cohorts of Latin-American women in this ethnographic study provided a myriad of responses about their perceptions of health and physical activity. The two groups identified common responses that were influenced by their cultural values as well as responses that were more unique to each group, which may reflect that middle-aged participants are more acculturated. Perceptions of health and physical activity, along with the health activities in which these Latin-American women engaged, were addressed.

Table 1. Demographics of the Sample (N = 25)

	<i>n</i>	Percentage (%)
Age range		
40–60	13	52
61–85	12	48
Marital status		
Married	15	60
Widowed	7	28
Divorced	1	4
Single	2	8
Average number of people in household	6	
Education level		
0–4 years	10	40
5–8 years	8	32
High school	6	24
College	1	4
Country of origin		
Mexico	22	88
El Salvador	2	8
Guatemala	1	4

Meaning of Health

The meaning of health appeared to be very personal to participants. The answers were varied, yet the women demonstrated the pattern of viewing “health as a gift.” Health was described as “not being sick,” “being without pain,” and “being able to do things.” One participant stated that:

It is the best, the treasure of life. Because if we don't take care of our health, well, we're always going to be sick. These are my thoughts: if I am not healthy, I can't share with anyone else, so health is the best thing that we have.

Others commented that “health was energy”—energy that enabled them to carry out their daily activities. For example:

Being with energy, feeling well, isn't it? Because I remember that last year I was here lying down. I broke my knee and my arm and I couldn't walk and I couldn't do anything and I didn't want to walk. I used to walk a half block and I would get tired. I used to suffer a lot from arthritis and that was a good excuse for not walking. Someone told me about this place to exercise and I started to go; from then I realized how much good exercise does to you to feel better. Now I feel with more energy to do more things.

The majority of participants focused on the physical aspects of health; however, some stated that health meant a “balance of good physical and mental health.” One participant stated that:

Well, exercise is very beneficial for me. One is that I like doing it very much. I love to exercise. And secondly, it's like getting medicine for me. If I don't exercise, for example, in the morning, when I get sad because of my loneliness—there are

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*times that my loneliness depress[es] me—
then I listen to joyful music [and exercise]
and my state of mind changes.*

Overall, the query about the meaning of health elicited positive responses rather than just something negative or the perception that health is simply the absence of a symptom.

Health Activities

The two health promotion activities that the Latin-American women participants most frequently identified were good nutrition and exercise, in addition to managing chronic diseases such as hypertension and diabetes.

The 15 (60%) women involved with El Club de Caminar generally demonstrated a more structured approach to their daily exercise routine. All of the club's members kept a journal or diary recording the number of blocks they had walked, which was evaluated quarterly by the group leaders.

All participants spoke favorably about the need to exercise and the fact that exercise contributed to one's overall health. One woman stated that walking prevented high blood pressure and strokes and that doing a variety of activities was important. She stressed that just doing household chores was *not* enough; one had to walk or do other types of exercise. It was noted that the type and frequency of the activities varied with the two cohorts; the younger groups engaged in more regular physical activity (Table 2).

Facilitators of Physical Activity

Factors that facilitated the women's participation in physical activity were identified as "sense of self," decreased feelings of stress, feeling good about one's self, a sense of well-being, the desire to manage chronic diseases such as diabetes and hypertension, a desire to lose weight, and having experienced a personal health event (Table 3). The intrinsic facilitator, "sense of self," is a unique finding in this study that translated into a sense of purpose or empowerment enabling participation

in physical activity. The sense of self and purpose demonstrated by these Latin-American women was strongly influenced by their cultural, familial, and religious values. In addition, the availability of social support, music, a family history of stroke or cardiovascular disease, accessible community programs, and knowledge regarding risk factors and disease prevention were also cited as motivators. Information regarding the types and availability of programs was obtained by word of mouth and passed along from woman to woman. Although participants had minimal health information about risk factors, when they received information from "authoritative" sources, such as group leaders, they internalized it. This was evident in their responses and in their demonstration of health behaviors, such as dietary practices and participation in physical activity. One woman explained:

*Well, I'm telling you, eat less fat to
avoid these problems [stroke and
cardiovascular disease], because if we
eat more fat, our veins get clogged and
that means more problems for the heart
because the heart keeps us alive. And
if the veins are blocked there is nothing
that would save us, isn't it?*

The community programs these women considered accessible were all located in their neighborhoods or close to their places of employment. All of the participants had heard about the various programs via word of mouth. Physical, as well as social, benefits were described by the participants as a result of regular participation in physical activity, such as "giving me energy."

Barriers to Physical Activity

Several barriers to participation were revealed by the women during the interviews, including physical illness or disability, pain, fatigue, lack of self-motivation, worry, and embarrassment. The older group of participants cited more physical problems such as arthritis and balance issues that prohibited them from assuming a more active role in exercise. The following extrinsic barriers were identified: the various role demands of the Latin-American woman (including child care and household chores or tasks), time limitations (cited by the participants working outside of the home), negative environmental conditions (such as unsafe neighborhoods and hot or rainy weather), the availability of and access to community-based programs, and limited information about risk factors and disease management. Some of the Latin-American women even expressed fear of getting lost and not being able to ask for directions because of language barriers.

Table 2. Type and Frequency of Physical Activity

Type of activity	Ages 40–60 (n = 13)		Ages 61–85 (n = 12)	
	n*	%	n*	%
Walking	12	92	6	50
Aerobics/group exercise	4	31	6	50
Home machine	1	8	2	17
Other (swim, garden)	1	8	1	8
Frequency of activity				
Regular (> 3 times per week)	10	77	4	33
Intermittent/sporadic (≤ 2 times per week)	3	23	8	67

*Some women engage in more than one activity.

In summary, the relationships among the various themes that emerged from the data were the intrinsic and extrinsic factors present in both the facilitators and the barriers that these women experienced. These multiple factors influenced their participation in regular physical activity.

Implications

Most agree that aggressive efforts are needed to decrease the risk of stroke and cardiovascular disease, especially as obesity and physical inactivity continue to be a pervasive issue in the United States. Certain ethnic groups, such as Latin-American women, people of lower socioeconomic status, and people with lower educational levels, are at higher risk for these chronic diseases (Mensah, 2005; Morgenstern et al., 2001; Smith et al., 2003). As previously noted, Latin-American women are more physically inactive than other ethnic groups and experience a higher incidence of obesity (ASA, 2004). The most salient clinical practice implication identified in this study is the need to initiate targeted strategies to increase and maintain the amount of regular physical activity in which Latin-American women participate. Developing creative interventions to address the multiple roles of Latin-American women and integrating physical activity into their daily routines present challenges for healthcare professionals and Latin-American women.

The study's findings indicate that providing culturally appropriate community-based programs that target Latin-American women and have structured physical activities in addition to information about disease risk factors and health behaviors are necessary. Spanish-speaking or bilingual culturally competent healthcare professionals should facilitate such programs. In addition, program leaders need to be aware of participants' various education levels. Significant findings from this study revealed that only 28% of participants had a high school diploma or above and 40% of participants had attended school for 4 years or less (Table 1), thus a range of educational materials would be needed for a program related to this variable.

It was also evident from this study's findings that programs need to be social in nature and provide childcare. Information regarding such programs should be initiated at community centers, local church parishes, and local schools to capitalize on the word-of-mouth method of information dissemination. Community activism promoting safe neighborhoods and accessible sites should also be part of a community-based nursing practice initiative. Implementing community-based programs in Latin-American neighborhoods can also help allay wariness and mistrust toward healthcare professionals.

Table 3. Facilitators and Barriers to Physical Activity Identified by Study Participants

Facilitators (Motivators)	Barriers (Hindrances)
Intrinsic	
Sense of self	Physical illness or disability
Decreased feelings of stress	Pain
Feeling good about one's self	Fatigue
Well being	Lack of self-motivation
Managing chronic disease	Worry
Desire to lose weight	Embarrassment
Personal health event	
Extrinsic	
Social support	Role demands (e.g., childcare, household tasks)
Music	Time limitations
Health information	Environment (e.g., safety, weather)
Family history	Inaccessibility of exercise facilities
Accessibility	Lack of social support
	Limited information about risk factors and disease management

An example of a creative initiative to promote regular exercise in this population was implemented in Southern California by the AHA. The grant-funded program, El Club de Caminar, targeted Latin Americans, primarily women, and provided education regarding stroke and cardiac risk factors at the local community centers. The program also promoted regular exercise through a walking program. Blood pressure, pulse, and weight monitoring were performed every 3 months at a local rehabilitation hospital that acted as a community partner. Each participant recorded their exercise in a walking journal or diary. Transportation to the hospital was provided for participants and families for the quarterly events during which there were education sessions, fun activities for children, vendors, healthy snacks, cooking demonstrations, blood pressure checks, and weigh-ins. Prizes were awarded for those who met their target goals (e.g., weight, number of blocks walked). The program and community center leaders provided additional support for the participants and helped them attain the objective of sustained behavior change.

Physical activity preferences also need to be explored, although walking was by far the most popular activity among the study's participants. Exercising 30 minutes a day can be a challenge for women with multiple role demands. Health practitioners should recommend alternatives, such as taking three 10-minute walks per day. That schedule may be more feasible because the walks can be combined with other activities of daily living and responsibilities, such as walking children to school, going to the market, or going to church.

Cultural beliefs regarding the woman's role in the Latin-American family, the appropriateness of the activity, family tradition, and spirituality need to be considered when developing and implementing strategies to promote physical activity.

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Recommendations for Research

It is important to further explore the facilitator sense of self and subsequent empowerment that these Latin-American women demonstrated. Studying these behavior determinants for participating in physical activity will contribute to a better understanding of health patterns among Latin-American women and provide additional valuable practice recommendations.

The concept of cultural unity or coming together as Latin-American women also warrants further development. Cultural influence on health beliefs and participation in health activities is well documented in the literature. The concept of "cultural unity," identified by Melillo et al. (2001) and validated in this study, is significant, which is consistent with themes identified by the National Institute of Nursing Research (2004) in their study about reducing health disparities. In addition, it is important to review the relationship between the education level of participants and participation in a stroke-prevention program to help healthcare professionals develop culturally competent, educationally appropriate, and salient interventions for Latin-American women.

Limitations

Several factors limit the ability to generalize the findings of this study to other populations. The sample was a convenience sample and some of the participants were previously engaged in regular physical activity as part of the walking club. Although common themes emerged, additional participation may have contributed to the saturation of the data. The middle-aged participants also appeared to demonstrate more acculturated behaviors than the older participants, thus the facilitators may hold less meaning for the former. There was also the aforementioned lower educational level of the participants which was incongruent with the local community high school graduation rate of 40% (U.S. Census Bureau, 2007). Finally, cultural practices varied because participants had immigrated from different countries, which also makes it difficult to generalize the findings for all Latin Americans.

Conclusion

According to the Latin-American women in this study, health was considered a precious balance of family relationships, spirituality, and being able to participate in the activities of life. This study revealed various factors that influenced this group's ability and desire to participate in activities, including the stroke-preventing behavior of physical activity. It is a challenge for nurses and

other healthcare professionals to foster involvement in physical activity, remove or minimize barriers, enhance facilitators, and provide supportive strategies to help Latin-American women sustain long-term participation that will contribute to positive health outcomes such as decreased stroke risk.

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