Physician Communication and Physical Activity Among Latinas

Maura Reilly, Guadalupe X. Ayala, John P. Elder, and Kevin Patrick

Background: Research suggests that individuals who talk with their physicians about lifestyle behaviors are more physically active. Research on this topic is limited in the U.S. Latino population. This study examines doctor-patient communication from the perspective of enrollees in a physical activity (PA) intervention.

Methods: Three hundred and eighty-seven Latinos were surveyed at program enrollment. Analysis examined the extent to which physician communication about healthy lifestyles and weight was associated with self-reported PA, including leisure-time PA (LTPA), transportation PA (TPA), and occupational PA (OPA). Physician communication included asking, advising, and assisting.

Results: Most of the respondents reported no LTPA (46%) and no TPA (60%). The percent reporting no occupational activity, which included housework if a homemaker, was lower at 36%. Greater physician assistance was associated with a greater likelihood of doing any LTPA ($P \leq .05$). A similar trend was observed for TPA ($P \leq .10$). Conclusions: Latinos who reported physician assistance to engage in healthy lifestyle behaviors reported more LTPA. Providers who assist their patients in obtaining resources to support PA have the potential to increase levels of PA.

Keywords: doctor-patient communication, exercise, Hispanics

Latinos are one of the fastest growing ethnic minorities in the United States. This group is expected to increase to 22.5% of the U.S. population by 2050; almost double the level recorded in 2000. Sixty-eight percent of the U.S. Latino population is identified as overweight or obese, and Latinos are one of the most physically inactive racial/ethnic groups in the United States. These factors put them at an increased risk for a number of chronic diseases including diabetes and heart disease. One way to reduce Latino health disparities is to increase physical activity (PA). PA combined with a healthy diet and stress reduction can reduce the risk of chronic disease.

PA counseling by a primary care physician is associated with modest short-term increases in PA levels. When a physician initiates a conversation about PA and weight loss, their patient is twice as likely to develop a diet and exercise plan. Those who develop plans are generally more successful in increasing PA, following a healthy diet, and achieving weight loss goals. Yet most adults in the United States do not report being counseled by physicians to lose weight and/or increase PA. Results from a national telephone survey revealed that only 28% of a random sample of respondents reported receiving advice from their physician to engage in regular exercise. Between 1998–2000, Latino adults reporting advice on weight loss and PA from a physician decreased from 46.5% to 38.0%.

Present Study

This study sought to fill a gap in the research by examining the extent to which physician communication about PA was associated with self-reported PA in a sample of Latinos living on the U.S.-Mexico border. It was hypothesized that participants who reported more communication about PA and other obesity-related behaviors with a physician in the last 2 years would also report higher levels of PA than participants who reported little or no communication with a physician.

Methods

Setting

More than one-half of the residents living in the target region identified as Hispanic (56%). Approximately a third (36%) were between 18–39 years of age and 53% were male. Nearly half of the adults had a high school diploma or the equivalent (43% had a GED which refers to a General Education Development, a test-based method for obtaining a high school degree) and 40% reported attending college or technical school. The region’s unemployment rate was close to 10%, double...
the statewide unemployment rate for all of 2000, and nearly two-thirds of households earned less than $50,000 per year. On numerous socioeconomic indicators, this is a disadvantaged community.

Participants
The study sample represents enrollees in the Familias Sanas y Activas PA intervention. Participants were recruited through a variety of methods, including face-to-face solicitation at health fairs and other community events, printed flyers posted in a variety of community locations (e.g., grocery stores, laundromats, clinics, community centers), mass media campaign (including television and radio spots), and on-site recruitment at the measurement events.

Measures
Global Physical Activity Questionnaire (GPAQ). The 16-item survey asks the respondent to think about a typical week and then estimate the number of days he/she engages in moderate and vigorous PA (at work, during recreational activities, and travel to and from places) as well as about time spent sitting. The respondent must then estimate the number of hours and minutes he/she engages in each activity on a typical day. Given the low prevalence of all forms of activity, responses were recoded into whether the individual reported engaging in any leisure-time physical activity (LTPA), any transportation physical activity (TPA), and any occupational physical activity (OPA).

Physician Communication. This 9-item scale, developed by this partnership, assessed 3 components of the 5 A’s Behavior Change Model. The original model was created in 1989 by the National Cancer Institute and revised in 2000 to include the following 5 dimensions: Assess, Advise, Agree, Assist, and Arrange. For this study, we considered only the original 3 A’s to minimize respondent burden: Assess, Advise and Assist. To minimize recall bias, the respondent had to acknowledge having seen a provider within the past 2 years. If the respondent answered “yes,” then he/she was asked to indicate yes/no whether his/her provider addressed a series of issues dealing with PA and obesity in general (see Table 1).

Demographics. Demographic variables included self-reported age, marital status, birthplace and length of residency in the U.S., educational attainment, employment status, yearly income, and health insurance status (see Table 2).

Data Analyses and Results
Of the 387 participants eligible for this study, 80.6% (n = 311) indicated that they had visited a healthcare provider within the last 2 years. All analyses regarding physician communication were limited to this subsample, which appears to be similar to the entire sample (see Table 2 for comparisons). Statistical analyses were carried out using SPSS.

Table 1 Percent Engaged in This Type of Physician Communication (n = 311)

<table>
<thead>
<tr>
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<th>n (%)</th>
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<tbody>
<tr>
<td>Assessed</td>
<td></td>
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<tr>
<td>Asked you about your exercise habits?</td>
<td>199 (64%)</td>
</tr>
<tr>
<td>Asked you about your eating habits?</td>
<td>188 (61%)</td>
</tr>
<tr>
<td>Advised</td>
<td></td>
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<tr>
<td>Advised you that becoming more physically active will help you avoid/prevent future health problems?</td>
<td>236 (76%)</td>
</tr>
<tr>
<td>Advised you that becoming more physically active will have a positive impact on your physical health?</td>
<td>219 (71%)</td>
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<tr>
<td>Advised you that becoming more physically active will improve how you feel about yourself and/or your quality of life?</td>
<td>205 (66%)</td>
</tr>
<tr>
<td>Advised you to lose weight?</td>
<td>182 (59%)</td>
</tr>
<tr>
<td>Assisted</td>
<td></td>
</tr>
<tr>
<td>Assisted your efforts in becoming more physically active by providing counseling and/or giving you a brochure/pamphlet?</td>
<td>162 (52%)</td>
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<tr>
<td>Assisted your efforts at becoming more physically active by asking your family members to support this lifestyle change?</td>
<td>110 (36%)</td>
</tr>
<tr>
<td>Assisted your efforts at becoming more physically active by referring you to a person, group, or organization for assistance?</td>
<td>104 (34%)</td>
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</table>
Almost half of the analytic sample (46%) reported no LTPA, 60% reported no TPA, and 36% reported no OPA. Among the physician communication categories, “Advise” was the most reported category with 80% reporting at least 1 of 4 items. “Assist” was the least reported category with only 58% reporting at least 1 of 3 items. Respondents who were obese reported receiving more physician advice than respondents who were normal or overweight ($P \leq .001$). Importantly, the sample was split almost evenly on whether they had health insurance (53% had private or government sponsored insurance); however, having health insurance was not associated with any dimension of physician communication.

The multivariate logistic regression analyses examining the relationship between each dimension of physician communication and the 3 types of PA, controlling for demographic factors, found that the odds of doing any LTPA ($P \leq .05$) were greater among participants who reported having received physician assistance (see Table 3). A similar trend was observed for TPA such that those who reported getting physician assistance were more likely to engage in TPA ($P \leq .10$).

### Discussion and Conclusions

In this sample of Latinos from a low socioeconomic region of California having received assistance from a physician about how to engage in PA was associated with leisure-time PA. There also was a trend to indicate that physician assistance was associated with engaging in TPA. No associations were observed between any other form of physician communication (assessing and advising) and any other dimension of PA.

Consistent with this study, previous studies evaluating dimensions of the 5 A’s model have found that assisting is implemented less frequently and less consistently than the other A’s. A national survey of programs that employed the 5 A’s model in primary care settings found that only 14%–17% of programs offer assistance in creating appropriate PA plans, identifying barriers and discussing strategies for avoiding/overcoming barriers.$^{15}$ Limited visit time,$^{24}$ lack of knowledge about and training on PA recommendations,$^{25,26}$ and physician attitudes regarding the difficulty of changing individual patient behaviors$^{27}$ may explain these findings. Nevertheless, given the results of this and previous studies, more research is needed on how to increase physician assistance during the doctor-patient encounter. Linking primary care patients to community-based PA and fitness programs may enhance the effectiveness of primary care clinician counseling$^{28,29}$ by providing them a resource to recommend.

Limitations of this study include its design, self-report bias, and use of a nonvalidated measure of physician communication. A cross-sectional design examines variables at a single point in time and causality cannot be determined.$^{30}$ Participants were asked to self-report on doctor-patient communication that occurred during the past 2 years. Two years may be a long time to recall information from a typical brief conversation with a physician.$^{31}$ In addition, there is the issue of social desirability. Social desirability bias occurs when participants over or underestimate a response based on what they perceive to be a socially acceptable answer.$^{32}$ Finally, the physician communication scale was developed given the unavailability of scales measuring these constructs in a culturally and contextually valid way for our target population.

### Practice Implications

This study suggests that Latino community members who receive assistance from their physician about PA engage in it more frequently than those who do not. If these findings are replicated in additional populations of Latinos, especially in prospective studies that use validated measures of doctor-patient communication, this suggests a promising avenue to address insufficient PA and obesity in this high-risk population.
Table 3  Odds of Engaging in Leisure-Time, Transportation, and Occupational Physical Activity as a Function of Various Forms of Physician Communication

<table>
<thead>
<tr>
<th>Physician communication</th>
<th>Leisure time PAa</th>
<th>Transportation PAb</th>
<th>Occupational PAC</th>
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<tbody>
<tr>
<td>Assessed</td>
<td>1.06 (0.69–1.63)</td>
<td>0.85 (0.59–1.21)</td>
<td>0.83 (0.59–1.18)</td>
</tr>
<tr>
<td>Advising</td>
<td>0.88 (0.68–1.14)</td>
<td>0.99 (0.80–1.23)</td>
<td>0.85 (0.68–1.05)</td>
</tr>
<tr>
<td>Assisting</td>
<td>1.35 (1.01–1.81)*</td>
<td>1.25 (0.99–1.59)**</td>
<td>1.07 (0.85–1.34)</td>
</tr>
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</table>

Abbreviations: PA, physical activity.

* P < .05; ** P < .10.

a Model controlled for marital status (OR = 0.50; P ≤ .05), employment, (n.s.) insurance status (1.9; P ≤ .05), and income (2.4; P ≤ .01).

b Model controlled for age (OR = 0.97; P ≤ .05), gender (n.s.), education (0.52; P ≤ .05), employment (0.40; P ≤ .001), and insurance status (n.s.).

c Model controlled for foreign born status (n.s.).

Acknowledgments

The study was supported by the Centers for Disease Control and Prevention-funded San Diego Prevention Research Center, Core Research Project (U48 DP00036-03). Special thanks are extended to all of the women who participated in this study.

References


