Walking and Neighborhood Environments for Obese and Overweight Patients: Perspectives From Family Physicians

Yan Hong, PhD; Marcia G. Ory, PhD, MPH; Chanam Lee, PhD; Suojin Wang, PhD; Jairus Pulczinski; Samuel N. Forjuoh, MD, MPH, DrPH

BACKGROUND AND OBJECTIVES: Primary care practitioners can play a significant role in helping patients adopt healthy behaviors such as physical activity (PA). The aim of this qualitative study was to assess family physicians’ understanding and perception of the personal and environmental factors influencing PA, especially walking, and factors affecting their counseling of obese patients about environmental motivators and barriers to PA.

METHODS: We conducted five focus groups with 35 family physicians and 14 family medicine residents in four clinics and a residency program affiliated with CenTexNet, a primary care practice-based research network in central Texas. Data were transcribed and analyzed using thematic content analysis.

RESULTS: Physicians were aware of the PA guidelines, but not many actually brought up PA during their counseling of patients. Physicians agreed that neighborhood environments are important for walking and reported that their patients often brought up environmental barriers. Physicians recommended walking as an ideal type of PA for obese patients and sidewalks, parks, and trails/tracks with smooth and soft surfaces as ideal places to engage in walking. However, they rarely talked about these factors with their patients due to a perceived ineffectiveness in counseling, an inability to address environmental factors, and time constraints in the medical encounter.

CONCLUSIONS: While physicians believe neighborhood environments often present many barriers to PA, they still believe that environmental factors are secondary to personal motivation in promoting PA among obese patients. Physicians, if better informed of the growing evidence on the environment-PA links, may be able to facilitate patients’ behavior change more effectively.

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About two thirds of the US adult population is overweight, and nearly one third is obese.1 Despite the many health benefits of physical activity (PA),2 about two thirds of US adults do not get enough PA to meet public health recommendations, and about one in four US adults remain completely inactive during their leisure time.1

The benefits of walking to prevent and reduce obesity and overweight have been well documented.3-5 Across gender, age, and income, walking is the preferred form of PA.6-8 reflecting a movement away from vigorous activities toward moderate activities that can be easily incorporated into daily routines.9

There has been a growing interest in how physical inactivity, obesity, and related chronic conditions and illnesses are affected by broader community and environmental factors.9-16 Moving beyond the behavioral perspectives from individual or even health care provider, public health researchers are linking population health promotion approaches to the chronic care model.17-19

The Expanded Chronic Care Model (ECCM), which calls for interactions between activated communities and prepared and proactive community partners (including health care providers), offers a useful conceptual framework to understand how patient self-management, physician interactions, environmental settings, and community programs/policies
affect lifestyle behaviors such as PA. 20

Similarly, the importance of both physical and social environments for individual’s PA (especially walking) and related health outcomes is increasingly recognized. 21-23 Most people consult their primary care physicians for their health problems, and obese or overweight patients see their primary care physicians on a regular basis. 24-26 The extant literature documents notable social influences from primary care physicians on patients’ behavioral change, such as smoking cessation. 27,28 Primary care physicians also have the potential to exert significant influence on obese patients’ walking and other PA through their regular consultation as evidenced in the growing literature examining the effectiveness of behavioral counseling for obesity-related behaviors. 29,30 However, previous research on primary care physicians’ attitudes or practices has rarely addressed the discussion of environmental barriers and facilitators during medical encounters with patients. 6,7,31,32

The growing obesity epidemic and recognition of the strong environmental influence on the onset and progression of chronic diseases emphasizes the need to start investigating ways to engage primary care physicians in the discussion of environmental approaches toward promoting physical activities. We conducted a series of focus groups with family physicians to address the following research questions: (1) What are the physicians’ perceptions and practices related to PA counseling with their patients, (2) What are the barriers to PA counseling, (3) What is the physicians’ understanding on the relationship between neighborhood environments and PA, and are physical environmental factors discussed in counseling, and (4) what are the physicians’ attitudes toward walkable neighborhoods and recommendations for good walking environments especially for obese patients?

Methods

This focus group study with family physicians was conducted in collaboration with two research universities and a large regional integrated health care organization in central Texas between 2009 and 2010 as part of a larger research project examining environment-PA relationships among obese and overweight patients. We first sent out e-mails to all family physicians and a residency programs in our four target clinics, with personalized contacts to the supervising clinicians and administrative support staff. The e-mails included the purpose of the focus group and the format of discussion, along with our team’s contact information. After we collected responses from interested physicians and residents, follow-up e-mails were sent to them to confirm the time and location of the focus group. We scheduled the meetings at lunch time to avoid disruption of work flow and provided free lunches. All focus groups were conducted by a senior researcher, and two researchers/investigators were present to observe and take notes. Each focus group took about 45 minutes. A pre-developed and piloted interview guide was used to facilitate all focus group discussions ensuring consistency of the procedure taken, questions asked, and discussion topics raised. The discussions were semi-structured and open-ended, and physicians were encouraged to exchange opinions among themselves. The study protocol was approved by the Institutional Review Board at Scott & White Healthcare and the Texas A&M University.

A total of five focus groups were conducted, and all were audiotaped except one due to the technical failure of the audio-recording device. However, detailed notes were taken by two researchers for all five focus groups. Table 1 lists the characteristics of participants of the five focus groups. Most of the family physicians were white, male, and aged between 30 and 60 years old; among the family medicine residents, half were female and most aged under 35 years.

Transcripts and observation notes were uploaded to Atlashi for analysis, using thematic content analysis methods, guided by the ECCM. 36 Preliminary coding started with reading and rereading the transcripts by research team members. Coding themes were developed based on the interview guide and the discussions among team members, reflecting our ECCM framework, which included both clinical and community contexts as well as individual behaviors and environmental influences. After consensus was reached on the

<table>
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<tr>
<th>Location</th>
<th>Total Number of Participants</th>
<th>Female # (%)</th>
<th>Male # (%)</th>
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<tbody>
<tr>
<td>Clinic A</td>
<td>6 family physicians</td>
<td>1 (16.7)</td>
<td>5 (83.3)</td>
</tr>
<tr>
<td>Clinic B</td>
<td>15 family physicians</td>
<td>4 (26.7)</td>
<td>11 (73.3)</td>
</tr>
<tr>
<td>Clinic C</td>
<td>6 family physicians</td>
<td>0 (0)</td>
<td>6 (100)</td>
</tr>
<tr>
<td>Clinic D</td>
<td>8 family physicians</td>
<td>3 (37.5)</td>
<td>5 (62.5)</td>
</tr>
<tr>
<td>Residency program</td>
<td>14 family medicine residents</td>
<td>7 (50.0)</td>
<td>7 (50.0)</td>
</tr>
<tr>
<td>Total</td>
<td>49 family physicians or residents</td>
<td>15 (30.6)</td>
<td>34 (69.0)</td>
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</tbody>
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coding themes, two research team members independently coded all transcripts. Their coding was compared, and the inter-rater reliability was 80%. The disagreements were discussed among all research teams until a consensus was reached. Detailed summaries with substantial retention of original quotes were prepared to facilitate further discussion and elaboration. Table 2 lists major themes and exemplary quotes. The findings presented here therefore reflect the range of responses and highlight several key themes that emerged from the focus groups.

Results

Awareness and Practices of PA/Walking Counseling

Recognizing PA as an important health behavior for their patients, participating physicians recommended PA as part of their routine care. As one noted, “I tell them to get whatever exercise they can to raise their heart rate to maybe 75% or 80% of their max and try to do it 30 minutes a day and five times a week.” Some physicians reported documenting exercise activities in their patients’ medical records to better monitor activity levels from one visit to the next one. As one remarked, “I record it if they say they are going to start walking, and ask them about it during a follow-up visit.”

All physicians in our focus groups had obese or overweight patients. Walking was particularly recommended to these patients. “I am really big on walking,” one relayed, “I tell everybody that they need to exercise everyday and I always ask them because for almost any condition you can think of, diabetes, hypertension, arthritis, or anything, everything gets better with walking.” Some physicians reported doing what they preach so they can better advise the patients. “I started running so I could better identify with my patients—personalize goal setting by telling your story to the patients.”

Physicians’ Knowledge and Perceptions of the Barriers to PA

Despite a universal acknowledgement of the importance of PA, especially walking, many physicians reported that helping their patients to walk still remains a challenge. “It is easy to tell them to walk, but they come back in 3 months and they are exactly where they were before.” Some physicians even expressed frustration from hearing excuses from their patients. “I get excuses all the time from patients. ‘I don’t have any exercise equipment,’ ‘I don’t have time,’ ‘It is too hot,’ ‘It is too cold,’ ‘My knees hurt,’ ‘My feet hurt,’ ‘My neighborhood is not safe,’

‘My partner quit’. . . I don’t think I am effective at all.”

A few physicians mentioned working with patients to address these barriers. A typical approach was to recommend a more realistic plan for patients. “Start low, exercise only a few days a week, add on more later.” Some physicians reported that they were able to sit down with patients to discuss the barriers and help them come up with specific PA plans. “I let them come up with as many excuses not to exercise, whether it is time or whatever. They come up with excuses on one column, and on the right hand side, come up with ways they are going to go around it. I let them come up with their own solutions, and most of the time, they can. If they can’t somehow, you help them with some suggestions. But most of the time they come up with their own solutions, and they are more likely to follow through.”

However, most physicians attributed patients’ physical inactivity to lack of motivation. “You give them all these recommendations and work around the barriers, but I think they have to have a goal and be motivated.” “If they want to do it, they’ll do it. If they don’t, they won’t. If that excuse doesn’t work, I’ll give you my second excuse; if that doesn’t work, I’ll give you my third excuse.” Because of a concern that patients were unlikely to follow advice, many

Table 2: Major Themes and Exemplary Quotes From Focus Groups

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<thead>
<tr>
<th>Theme</th>
<th>Exemplary Quotes</th>
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<tr>
<td>Awareness and practices of counseling related to physical activity (PA)/walking</td>
<td>“I tell them to get whatever exercise they can.”</td>
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<td>“I started running so I could better identify with my patients.”</td>
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<tr>
<td>Physicians’ reactions to patients’ inactivity</td>
<td>“I got excuses all the time from patients.”</td>
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<tr>
<td></td>
<td>“I give them all these recommendations and work around barriers, but they have to have a goal and be motivated.”</td>
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<tr>
<td>Understanding of the relationship between neighborhood environments and PA</td>
<td>“The environment certainly can make a difference for those people that are on the border.”</td>
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<td></td>
<td>“They are looking for an easy fix.”</td>
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<tr>
<td>Physicians’ attitudes toward environmental resources to promote PA/walking</td>
<td>“Cities that have lanes or paths for bicycles or walkers are exercise-friendly communities.”</td>
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<tr>
<td></td>
<td>“It would be helpful if you add a quick link in our family medicine favorite page about walking trails in the city.”</td>
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physicians did not counsel physical activities with obese patients. As one expressed her/his frustration, “I raised up three white flags years ago. So far I haven’t seen anything that has worked.”

Time constraint during counseling is the second major barrier to discussing PA with patients. One physician indicated that “Sometimes the conversation doesn’t get that in depth when it is part of a larger visit with a lot of other issues. So if somebody specifically came in and said ‘I’d like to have some recommendations regarding exercise and weight loss,’ then I think we’d have to, and we’re afforded the time to do that. But when you are trying to assess them for their blood pressure or their heart disease or whatever, and I don’t think the conversation gets that in depth.”

Understanding of Environment-PA Relationships
All physicians agreed that the neighborhood environment was an important factor for walking and PA. One remarked that, “If you live in an unsafe area, because of crime or high traffic, then that’s going to impede you because you probably would have to drive some places to walk.” Some physicians reported that inadequate neighborhood environments were raised by patients as barriers to walking, for instance, living next to a highway and living in an unsafe neighborhood. A physician observed, “The environment certainly can make a difference for those people that are on the border, if it is a little more inviting, a little more convenient, they don’t have to drive some place to walk, and that does reduce some barriers.”

Despite a consensus on the importance of the neighborhood environment for walking, few physicians talked about this with their patients, mainly because of its “irrelevance” to the consultation and the overriding theme of “motivation” as a more critical factor for PA. In addition, physicians suggested that they felt they were not able to address the barriers related to neighborhood environments appropriately, so they sometimes recommended indoor facilities for patients. For example, several suggested recreation centers, health centers, or senior citizen centers for their patients. Physicians also recognized that indoor facilities may not be easily accessible for many patients as driving is required to get to most of these facilities. One remarked, “The mall is a great one when they tell me there are too many mosquitoes, too wet, too hot, too cold . . . I mean so you can eliminate all those when you get into the mall. Although I have patients coming out from rural country, and it is not practical for them driving into town to walk in the mall.”

A few physicians were aware of the outdoor facilities; however, distance was a major obstacle. “The city has done a very good job for the size of city we live in, putting parks and walking areas. Most of those you might have to drive to, unless your neighborhood is close enough to a community park.”

Physicians also shared their concern on social environments such as social norms. One physician criticized our culture of wanting the “easy fix.” “I think sometimes we shoot ourselves in the foot though, because you know we just give them their diet pills and the shakes, ‘Here take this, this will solve your problems,’ and we don’t say ‘You got to come in once a week, you got to show me your exercise and your diet history’. They are looking for an easy fix. It is easier to take a pill, or take a shake than to exercise once a week.”

Another physician commented on the social norm of staying indoors in younger generations. “Sometimes I drive down into housing areas and you’ll see a beautiful little park area and there won’t be one kid out there, all year long. They’ve been trained to stay inside at the desk. Stay in an environment with air conditioning.” A physician related a social network of inactivity: “You see parents who are overweight or obese and don’t do anything, and their kids doing the same thing. It carries down generations. It’s more than genetics.”

Physicians’ Attitudes Toward Neighborhood Resources for Walking and PA
Disadvantages of modern suburban neighborhood design were noted. “The problem we have is, we have done away with the old communities, and we’ve turned them into big giant auto tracts. But where I shop, where I buy groceries, where my kids go to school . . . and you have to commute 30 minutes or an hour to work. It is nice to have it all within walking distance because that promotes all of those things.”

Physicians also shared their concerns about the impact of poor neighborhood design, indicating, for example, “People can’t walk anywhere because there is no sidewalk.” Many advocated for more sidewalks or walkable neighborhoods. “Cities that have lanes or paths for bicycles or walkers are exercise-friendly communities,” observed a physician. Another added, “Definitely we need to redesign our community. We need to get rid of those enclaves that are out in the suburbs that are isolated and everybody has to drive everywhere. We need more public transportation. Some people have to walk to get on the bus and walk to where they are going. We need more parks, we need more bike trails, we need to be able to walk to anywhere.” Some physicians related to their own experience of walking in the neighborhood, “I think the signs that say ‘This loop is a mile and half,’ it would give you a sense of progressing.”

A few physicians also emphasized the special needs for obese patients, “In this population (obese patients), you’re looking at injury prevention, so they are needing a flat surface or ideally a cushioned surface. They can’t be in a place where they’re going to have path holes; they can’t walk in the dark. Safety and convenience are big issues for them.”

Physicians also expressed a need for resources on walkable neighborhoods, so that they can provide
those to their patients. One pointed out the limitation in current resources available/given to them, “No one sits down with local health care providers and says, ‘These are your resources.’ You have to find these on your own. Many of us don’t know what is offered in xxx (name of the city).”

Some physicians suggested using computers available in most physicians’ examination rooms. “Because now we have PCs and printers in all of our rooms, it would be more helpful if you add a quick link on our family medicine’s favorite page that said walking trails in xxx (name of the city) and then you can just click on that and print it. That would be easier than filing a bunch of papers in a filing cabinet.”

Physicians suggested that the city should be more involved in promoting PA resources. “A city should promote parks and safe exercise places in their city Website.” “I think it would help if you had a listing of where people could walk, and give them some goals like try to do this in 30 minutes or 45 minutes. In clinics, we don’t have time to explain that all. You can do that in community or with health educators.”

In addition to the online resources provided through easily accessible Websites, physicians also suggest community events as a way of motivating patients. “I think more community organized events, instead of just once in a while. If you had weekly, say, we’re going to meet here and walk to here, some people might just show up once, and they get hooked on it.”

Discussion

Our focus groups with family physicians indicated that physicians were aware of the PA guidelines, and a majority provided PA counseling to obese or overweight patients. However, concerns were raised that patients do not follow such recommendations and that the limited consultation time made it difficult to counsel patients thoroughly. Such findings are similar to previous reports on primary care physicians’ knowledge and attitudes toward PA. The overriding theme of “motivation” indicated that most physicians believe that self-motivation is the major determinant of patients’ PA.

In the counseling of physical inactivity, neighborhood factors such as “unsafe neighborhood” and “far away from the park” are often considered as excuses or lack of motivation and ignored by the physicians. Our study suggests that physicians should be aware of the patients’ environmental barriers to PA and work with them to find possible solutions. For example, several physicians reported effective counseling strategies, especially by incorporating behavioral principles into counseling, for instance, working with patients to set up a plan and to start from easy options, and making notes in medical records to follow-up with patients. These counseling skills may be promoted to all family physicians as “best practice” and be integrated into the popular “exercise prescription schemes.”

We also recommend that physicians receive training on motivational interviewing to become more effective in motivating patients to engage in PA. Further, if physicians and other health educators have more knowledge about the different stages in behavioral change (ie, transtheoretical model), they can offer more successful and tailored guidance, recognizing and encouraging every step the patients take toward regular PA.

Although not conversing about neighborhood environments with patients, physicians shared keen observations and critiques on current neighborhood designs and offered insightful suggestions on more supportive conditions for promoting walking and PA. With the recognition of obesity as a complex public health problem, it is important to have physicians support environmental and population-based approaches toward promoting PA.

While some physicians were aware of the importance of neighborhood environments for walking, there was also a sense of inadequacy in helping patients deal with obstacles related to neighborhood environments. A possible solution is a user-friendly and technologically enabled tool that is easily accessible by patients, leading us to develop a city/county-specific Web-based resource guide. It would also be helpful to provide physicians a list of local PA resources as well as existing PA promotion programs. We also encourage family physicians (and their supervising administrators) to have more interactions with local health educators to promote synergetic collaboration across health care providers and community and identify the most sustainable and community-friendly strategies to promote PA.

In search of better strategies to promote PA, it is important to have interdisciplinary and collaborative research from family medicine, public health, and urban planning. Relevant research findings from multiple disciplines need to be disseminated across the fields and effectively translated to facilitate practice and policy changes that can foster broad population-level behavior changes.

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