Published in final edited form as:

Clin Gerontol. 2018 ; 41(4): 326–334. doi:10.1080/07317115.2017.1376029.

The role of primary care providers in encouraging older patients to change their lifestyle behaviors

Shoshana H. Bardach, PhD and

University of Kentucky, Graduate Center of Gerontology, College of Public Health and Sanders-Brown Center on Aging, 1030 S. Broadway, Suite 5, Lexington, KY 40504, Phone: (859) 323-1331, Fax: (859) 257-4233

Nancy E. Schoenberg, PhD

University of Kentucky, College of Public Health and Behavioral Science, College of Medicine, 125 Medical Behavioral Science Building, University of Kentucky, Lexington KY USA 40536, Phone: (859) 323-8175

Abstract

Objectives—This study sought to identify older patients' perceptions of primary care providers' influence on their likelihood of improving diet and physical activity.

Methods—104 adults ages 65 and older were interviewed immediately following a routine primary care visit about their plans and motivations for behavior change and how their clinic visit would influence their likelihood of making lifestyle changes. All interviews were recorded, transcribed and analyzed using a constant comparison approach.

Results—Participants reported that their providers influence their health behaviors by developing strong relationships, addressing concerns and encouraging change, and providing concrete instruction. When providers did not discuss diet or physical activity, or mentioned these topics only briefly, participants often perceived the message that they should continue their current behaviors.

Conclusions—Whether and how diet and physical activity are discussed in primary care influences the likelihood that older adults will make changes in these behaviors.

Clinical Implications—These findings highlight the need for a patient-centered counseling approach and caution providers to think twice before omitting discussion of the need for lifestyle change.

Keywords

Primary Care; Older Adults; Lifestyle Change; Health Behavior

Introduction

Older adults have frequent contact with the healthcare system to manage existing conditions and prevent the development of new ones (Cornoni-Huntley, Foley, & Guralnik, 1991; Fortin, Bravo, Hudon, Vanasse, & Lapointe, 2005). Adults ages 65 to 74 average 6.5 physician office visits per year; adults ages 75 and over average 7.7 (Committee on the Future Health Care Workforce for Older Americans, 2008). Nearly half (44%) of these visits were to primary care providers (The American Geriatrics Society, 2012). These frequent healthcare visits create an opportunity for healthcare providers to encourage adoption and maintenance of healthy diet and physical activity behaviors.

Despite the potential disease prevention, disease management, and quality of life benefits of engagement in healthy diet and physical activity, poor diet and physical inactivity remain pervasive among older adults (Carlson, Fulton, Schoenborn, & Loustalot; Frank, Kerr, Rosenberg, & King, 2010; Moore et al., 2015). Doctors indicate a number of reasons they may not discuss lifestyle behaviors during a routine medical visit including competing visit demands, not wanting to make the patient feel embarrassed and compromise the relationship, and their belief that counseling efforts are futile (Bardach & Schoenberg, 2012; Dolor et al., 2010). Notwithstanding these challenges to incorporating lifestyle discussions into healthcare visits, the majority of routine primary care visits include some discussion of diet or physical activity, although many are only passing comments or rote questions (Bardach & Schoenberg, 2014). While the topic of diet and physical activity is frequently raised, motivations to change these behaviors remains low.

Research suggests that a doctor's recommendation may increase the likelihood of behavior change (Burton, Shapiro, & German, 1999; Sciamanna, Tate, Lang, & Wing, 2000), yet little is known about why some discussions result in behavior change attempts and others do not. In fact, much of the existing research showing a relationship between lifestyle discussions and behavior is correlational or relies on retrospective accounts of recommendations, making it hard to ascertain if the discussion has an influence or if discussions are just more common or more likely to be remembered among those engaging in or motivated to improve recommended behaviors (Galuska, Serdula, Brown, & Kruger, 2002; Greenlund, Giles, Keenan, Croft, & Mensah, 2002; Jay, Gillespie, Schlair, Sherman, & Kalet, 2010). While we have previously examined the content of older adult primary care visits and recall for diet and physical activity discussion, we have not yet explored the role of the primary care provider (Bardach & Schoenberg, 2014; Bardach, Schoenberg, & Howell, 2017). The goal of this research is to understand, from the patient perspective, **how** primary care providers can influence engagement in lifestyle behaviors.

Methods

One hundred and four older adults, ranging in age from 65 to 95, were recruited from two primary care clinics at an academic medical center immediately prior to their medical appointment. Patients were eligible if they were 65 years of age or older, able to hear, speak English at length, were cognitively able to consent and respond to questions, and were seeing a provider who had consented to participate. There were twenty providers who agreed

in advance to participate, 12 from Internal Medicine (60%) and 8 from Family and Community Medicine (40%). Most were attending physicians (n=15, 75%); there was also one nurse practitioner, one physician assistant, and three resident physicians. There were equal numbers of male and female providers. While the providers were informed the research focus was on lifestyle behaviors, the specific behaviors of diet and physical activity were not mentioned.

Each patient participant consented to have his/her routine primary care visit recorded and immediately following the visit engaged in a semi-structured interviews regarding current health behaviors and perceptions of their providers' diet and physical activity recommendations. Interview questions included patient sociodemographics, patients' recall for diet and physical activity content within their appointment, and motivation level and plans to engage in healthy diet and physical activity behaviors. All interviews were conducted by the first author, who had extensive qualitative training and interviewing experiencing within healthcare settings. Given the focus on the patient perspective of how primary care providers can influence engagement in lifestyle behaviors, this manuscript focuses on the analysis of the semi-structured interviews rather than the clinic visits themselves.

Interviews were tape recorded, transcribed verbatim, coded, and analyzed using a constant comparison approach. A codebook was created using line-by-line coding, with codes developed and revised as new concepts were identified (Morse, Barrett, Mayan, Olson, & Spiers, 2002). This coding process enabled us to explore relationships and identify emerging themes (Creswell, 1998; Hsieh & Shannon, 2005). Two coders, both with extensive qualitative analysis experience, independently coded a sample of the interviews. Interrater reliability was calculated by dividing the number of codes agreed upon by both raters divided by the total number of codes used by the two raters, resulting in an 83% agreement which is considered to be an adequate level of agreement for semi-structured qualitative data (Weber, 1990). We explored patient's responses to the perceived influence of their lifestyle discussions to better understand the nuances and complexity between discussion of diet and physical activity and patients' likelihood of making lifestyle changes. Rigor was enhanced through member checks with participants. All protocols were approved by the University of Kentucky Institutional Review Board and all patients and their providers who were recorded consented to participate.

Results

Sample characteristics

Patient participants—104 older adults, ranging in age from 65-95 participated. Just over half (54%) were female, the majority (59%) were married, 45.2% were college graduates, over half (58%) considered themselves financially secure, and 81.7% were white, not Hispanic. Patients reported an average of 3.9 visits to their provider over the past year (see Table 1). The sample was one that would likely benefit from lifestyle discussions; participants had a mean of 2.6 self-reported chronic health conditions and 72% were overweight or obese. In addition, 60% reported suboptimal fruit and vegetable consumption

and 65% reported suboptimal physical activity, with actual engagement in these health behaviors likely to be even lower.

Findings

Analysis of the interview transcripts revealed four themes – relationships matter, addressing concerns and encouraging change, providing concrete instruction, assumptions patients make based on lack of provider communication – that encapsulate how patients perceive provider discussions of diet and physical activity influence health behaviors.

Relationships matter—Patients overwhelmingly were satisfied with their relationships with their providers, reporting well-established relationships, with a mean of 6.5 years duration. Patients reported an average satisfaction ranking of 9.5 out of 10 and perceived these strong relationships to influence their desire to follow provider recommendations. One patient, Mrs. G., indicated, “I really trust Dr. T. I like him a lot. I’m more likely to follow what he says than any other doctor. He is a pretty good guy.” Trust in a provider’s advice also increased the desire to listen. One patient, Mr. L., talked about how he started walking after his doctor suggested it would help his diabetes. When asked about this influence he responded, “If you don’t do what the doctor says, how do you expect to get better?” While patients viewed a strong sense of familiarity with their provider as positive overall, patients also speculated that when the provider was familiar with the patient’s diet and physical activity, these behaviors often were omitted from discussion.

Patients expressed how relationships with providers were shaped by attitudes towards older adults. One 71 year old female patient, Mrs. N., described a negative relationship with a past doctor, “It’s terrible. You know, when a doctor looks at you and says, ‘What do you expect at your age?’ you just want to stand up and smack them, because your age has got absolutely nothing to do with it.” Another patient, Mr. R., discussed appreciating his current provider because she does not exhibit the same negative age stereotypes that his previous provider had demonstrated:

The one I had before, we just didn’t hit it off right from the very beginning. And he always used to say, ‘someone your age’ and ‘we have to do this because people your age’ and I just found that offensive. So we kind of bumped heads from the beginning.

Addressing concerns and encouraging change—While the quality of the patient-provider relationship in and of itself influenced the likelihood a patient would be responsive to provider recommendations, the content of the diet or physical activity discussion was also important. Patients reported that providers were able to increase their confidence in their ability to make diet and physical activity improvements by addressing health concerns that patients perceived as barriers to change. For instance, a 79 year old female, Mrs. C., mentioned how her shoulder had been hurting and, given the pain she was experiencing, she did not feel she should be physically active. She reported sharing with her provider that she thought her shoulder pain would get better through rest, and that her provider countered that the pain might increase if she did not use her shoulder. In this case, the provider was able to remove the perceived barrier by addressing the patient’s concern and increased the patient’s confidence in her ability to be physically active. Similarly, a 65 year old male, Mr. V.,

expressed how once his provider confirmed that he did not have pneumonia and could therefore safely exercise, the perceived barriers to increasing his physical activity were removed. He stated, “There’s nothing stopping me I know from going ahead and pushing harder. I know that from this visit, so that helps.” Others who did not receive reassurance suggested that their health conditions prevented them from making changes; without being explicitly discussed with their providers, it is unclear whether these perceived health barriers could have been addressed or whether they truly prevented improvements.

Patients reported that general encouragement also served to enhance their confidence to make changes or to continue with current efforts. A 65 year old male, Mr. H., reported, “With their encouragement and their agreement with my plan, it gives me the ability to move forward with confidence.” A 71 year old male, Mr. P., indicated, “I do a lot of reading on this, and part of this is getting reassurance from them that I’m doing the appropriate thing. And I did get good reassurance.” A 75 year old female, Mrs. Z., also expressed, “any support they give makes you more confident that I should do that.” Another patient, Mrs. B., explained how her provider’s support was influential; she shared that while she already had the knowledge, she needed encouragement to make diet and physical activity changes.

Providing concrete instruction—Participants also indicated that a clear plan for change enhanced the likelihood that they could make a lifestyle change. Some patients explained that without discussion of the steps necessary to make a lifestyle change, the prospect of change was considered too difficult. Many patients reported discussing weight loss goals during their visits, but indicated that few plans for how to achieve these goals were discussed. When we asked one patient, Ms. Q., about whether she had discussed diet with her provider she replied, “Not really. That doesn’t mean that I don’t mention wanting to lose ten pounds, but I don’t get nutritional information.” Without this information regarding how to achieve her weight loss goal, she remained motivated to make changes, but lacked actionable dietary knowledge and strategies that would give her the confidence to move ahead.

Based on the transcripts from the visits themselves, often, even when plans were discussed, they were often somewhat vague, with patients being told to “watch what they eat,” “watch their diet,” “work on diet and exercise,” invest “a little bit of extra effort into the lifestyle” with no in depth discussion. One 83 year old female patient, Mrs. D., reported that she and her providers had never discussed diet before, “I’ve mentioned diets before to them, but they never did tell me what I could do to lose weight.” This patient was trying to convey that while she and her providers had briefly discussed diet, they had never discussed the elements she felt necessary to instill her with the knowledge of how to make changes that could result in her desired weight loss goal. For many patients, knowledge or information from their providers seemed to be a necessary predecessor of the perceived ability to make changes; without guidance from their providers they lacked specific, actionable knowledge of how to make changes and consequently also lacked the confidence to make changes. A 68 year old male, Mr. S., reported a goal of lowering his A1C:

I achieve those goals with diet and exercise and drugs. There are some specific things that I could do with drugs, and we talked about those. And there are things that I do

with the diet and with the exercise that I will have to figure out how to accomplish. And they are fairly concrete, I just don't know yet what they will be.

This patient suggested that medication instructions were clearly discussed, but recommendations for diet and exercise were more ambiguous. While he conveyed a sense of confidence that he would ultimately figure out how to improve his diet and exercise, he lacked the knowledge of what changes were appropriate and felt uncertain regarding how to initiate changes. Accordingly, it seemed that discussions that involved recommendations had the potential to be far more influential than those that did not include specific recommendations for change.

Assumptions patients make based on lack of provider communication—

Patients expressed how providers' limited discussion of diet and physical activity contributed to a lack of perceived need for behavior change. Many patients who reported their provider did not offer any diet or physical activity recommendations indicated that the implicit message they received was that, "I think she [my provider] thinks I'm doing ok" and to just "keep on doing what I am doing." Patients reported that diet and physical activity discussions often seemed to take place to meet documentations for the provider's records, rather than for the benefit of the patient. One patient, Mrs. J., replied to our question about health behavior discussions in her visit, "I wouldn't say we discussed it, but she asked me and I answered." Similarly, a 69 year old male, Mr. F., expressed that the dietary discussions with his provider had nothing to do with health but rather, was "just for his [the provider's] records...I think these are just general questions that doctors ask their patients." The lack of engaging discussion or provision of advice was perceived by patients as an indicator that there was no need to make any changes. Similarly, many participants attributed a lack of specific recommendations or discussion of the benefits of diet or physical activity to providers already believing they are knowledgeable; as one 69 year old male, Mr. K., described, "They know I know how to do it."

Patients believe that because their providers are familiar with their activities and are looking out for their health, providers would discuss these behaviors if they had any concerns. One 70 year old male, Mr. A., explained, "I think formally...no [we did not discuss diet or physical activity], but in fact, if there were an issue, you could bet that they would bring it up. So it's a familiarity thing." When providers choose not to have these discussions patients sometimes perceive the absence of diet and physical activity discussion as implicit approval for their current diet and physical activity.

Conclusion

This research has several limitations. The research was conducted in a single academic medical center and while patients were recruited from two different departments to increase diversity, the participants were predominantly non-Hispanic White, well educated, financially secure, and had long-term relationships with their providers. Accordingly, these findings may not be generalizable to other populations, settings, or geographical areas. In addition, feasibility concerns led us to rely on patient's perceptions of influence as the best proxy available for actual influence. Despite these limitations, this research provides novel

insights, grounded in real patient experiences, regarding primary care providers' potential to encourage healthy lifestyle behaviors among older adults.

These findings highlight the importance of provider discussions and provide insights into how the nature of the relationship and content of the conversation lead to some conversations having the potential to be more influential than others. Given the complexity of lifestyle counseling with older adults, we found it useful to consider our findings in the context of the Healthy Aging Model (Potempa, Butterworth, Flaherty-Robb, & Gaynor, 2010). This model was developed to facilitate research and practice by supporting health behavior change among older adults. The four defining elements of the Model include: recognition of the client's health system or personal context in which they live, highlighting how relationships – both within the medical field and without – can provide assistance and support in personal healthcare improvement; an individualized “coaching” strategy for behavior change; a goal driven approach; and a client-centered perspective. These elements are also consistent with motivational interviewing, which emphasizes a client-centered approach to help patients identify their own motivations and goals for change in order to elicit change (Rubak, Sandbæk, Lauritzen, & Christensen, 2005). The Healthy Aging Model suggests that these spheres of influence are nestled within each other and the greatest likelihood of behavior change will result when all aspects are acknowledged and appropriate strategies are implemented.

Consistent with the importance of context, we found that greater benefits accrue to those providers and patients who form positive relations. In addition, the finding that providers' attitudes towards aging shaped the relationship suggests that providers should be cognizant of their own attitudes and strive to recognize the individuality of each patient rather than make age-based generalizations. Ageism is prevalent throughout society; for providers to meet the needs of their older patients, they need to develop an awareness of their ageist beliefs and actively work to counter them (Butler, 2005). While the provider represents one potential influence on patient behavior, patients do not exist in a biomedical vacuum. Patients' real and perceived ability to make changes depends on the resources available to them and their physical and social environments (Følling, Solbjør, & Helvik, 2015). While these factors may be outside of the providers' control, providers can leverage patients' assets for making changes (e.g., can draw on family supports) and problem solve factors that may serve as constraints or barriers to change (e.g., facilitating access to facilities or identifying resources for change). Given that patients were overwhelmingly positive about their providers, providers are well situated to play an active health promotion role in older patients' lives.

The individualized “coaching” strategy for behavior change corresponds with the sentiment expressed by participants that alleviating their personal concerns and providing encouragement influenced the likelihood of making lifestyle changes. This “coaching” role of helping reassure, motivate and cheer the patient on seemed crucial to providers' ability to be influential. By working with patients to develop plans for change, providers can help address concerns and provide encouragement for commencing or sustaining new behaviors. Providers may also be able to “coach” patients by relating the value of diet and physical activity to patients' current conditions, explaining how diet and physical activity may help

reduce symptoms, improve disease management, and reduce reliance on medications (Thompson et al., 2003). Prior research has identified hospitalizations, health symptoms, and new diagnoses as “teachable moments” for health behavior change (Esler & Bock, 2004; Fonarow, 2003; McBride, Emmons, & Lipkus, 2003; Sussman, Williams, Leverence, Gloyd, & Crabtree, 2006). These events or contexts may represent deviations from patients’ expectations of health and result in an increased readiness and capacity for change (Lawson & Flocke, 2009). The opportunity for “teachable moments” is often underused by providers (Gritz et al., 2006). Given that the existing reimbursement system is volume-drive and providers have multiple competing demands and prevention efforts can be time consuming, providers who feel that visit time constraints preclude these valuable opportunities for lifestyle counseling or who may be concerned over the futility of lifestyle counseling may want to refer patients to other professionals or community resources (Bardach & Schoenberg, 2012; Yarnall, Pollak, Ostbye, Krause, & Michener, 2003). Other efforts to address visit time limitations include the use of technology assisted interventions. While these approaches hold promise, prior research suggests that interventions that incorporate feedback from personnel are more effective than fully automated interventions (Levine, Savarimuthu, Squires, Nicholson, & Jay, 2015). These findings, combined with those in the present study, suggest that technology cannot fully replace provider contact; as these interventions are further pursued we should be sure that the elements of the Healthy Aging Model identified here are incorporated into program design.

Providers also may provide encouragement for healthy diet and physical activity by helping patients understand the benefits of changes they have already made (DiClemente, Marinilli, Singh, & Bellino, 2001). These benefits can be conveyed by highlighting improvements in lab values, acknowledging progress towards weight loss goals, or by discussing health benefits that may not be easily noticeable but can still reduce the patient’s likelihood of adverse events. When individuals believe they are making progress toward a goal, they become more motivated to continue working towards that goal; in contrast, individuals’ motivation can decrease when progress is not acknowledged (Nunes & Drèze, 2006).

The goal-driven approach aspect of the Healthy Aging Model – described as having individualized, specific, and achievable goals – converges with our findings that discussions of the relevant behavior, as well as recommendations and concrete instructions for how to make changes, were influential in patients’ likelihood of making a change. Patients expressed that concrete instructions presented a pathway for success, making goals feel achievable. Unfortunately, prior research suggests that action items – e.g. specific plans for change – often do not occur in lifestyle counseling visits (Sciamanna, Goldstein, Marcus, Lawrence, & Pinto, 2004). Many patients in the current study indicated being discouraged to make future changes due to past failures –stressing the importance of problem solving more feasible approaches for proposed future changes. Repeated failures likely feed into perceived futility (Bandura, 1997); helping patients identify clear goals and steps towards improvement may promote the likelihood of success and have benefits for current and future health behavior change attempts. Part of the goal-driven approach may be to help patients identify their own goals. By developing an understanding of their patients that goes beyond a list of medical ailments, providers can use their medical knowledge to highlight how healthy

diet and physical activity can help support patients' personal health and life goals (Entwistle & Watt, 2013).

Finally, our results support the need for a client-centered perspective to promote behavior change. An improved understanding of the extent and source of patient motivation would allow the provider to tailor interaction and counseling. We found that it is not only what is said, but also what is unsaid, that shape a patient's sense of health and need for change. Patients sometimes shared their current diet and physical activity efforts with a desire for weight loss, and occasionally received responses of simply "okay." Such a lackluster response may have been discouraging if patients sought reinforcement or encouragement. Similarly, providers occasionally broached the topics of diet and physical activity through checklist type questions and then did not follow-up on patient responses. Providers' questioning of patients about their health behaviors without further discussion may shift the focus from a client-centered one and send the message to the patient that the patient's current behaviors are appropriate. When patients believe their provider is aware of their current health behaviors and trust that their provider is looking out for their health, the lack of any advice is perceived as indicative of no need for change. In addition, even for patients who come away with a desire for behavior change, they may be confused about how to proceed without further conversation (Leiferman, Sinatra, & Huberty, 2014). Increasing providers' comfort not just asking about, but truly engaging in discussion of these topics would reduce the likelihood of sending inadvertent implicit messages that no behavior change is needed.

Acknowledgments

This work was supported by the National Center for Research Resources (NCRR), funded by the Office of the Director, National Institutes of Health (NIH) and supported by the NIH Roadmap for Medical Research (Grant Number TL1 RR033172). The content is solely the responsibility of the authors and does not necessarily represent the official views of National Center for Research Resources (NCRR) and National Institutes of Health (NIH).

References

- Bandura, A. Self-efficacy: The exercise of control. New York, NY: W. H. Freeman; 1997.
- Bardach SH, Schoenberg NE. Primary Care Physicians' Prevention Counseling With Patients With Multiple Morbidity. *Qual Health Res.* 2012; 22(12):1599–1611. DOI: 10.1177/1049732312458183 [PubMed: 22927702]
- Bardach SH, Schoenberg NE. The content of diet and physical activity consultations with older adults in primary care. *Patient Educ Couns.* 2014; 95(3):319–324. DOI: 10.1016/j.pec.2014.03.020 [PubMed: 24736190]
- Bardach SH, Schoenberg NE, Howell BM. Older Patients' Recall of Lifestyle Discussions in Primary Care. *J Appl Gerontol.* 2017; 36(4):386–400. DOI: 10.1177/0733464815574095 [PubMed: 25758126]
- Burton LC, Shapiro S, German PS. Determinants of physical activity initiation and maintenance among community-dwelling older persons. *Prev Med.* 1999; 29(5):422–430. DOI: 10.1006/pmed.1999.0561 [PubMed: 10564634]
- Butler R. Ageism: Looking Back Over My Shoulder. *Generations.* 2005; 29(3):84–86. Retrieved from <http://www.ingentaconnect.com/content/asag/gen/2005/00000029/00000003/art00016>.
- Carlson SA, Fulton JE, Schoenborn CA, Loustalot F. Trend and Prevalence Estimates Based on the 2008 Physical Activity Guidelines for Americans. *Am J Prev Med.* 39(4):305–313. DOI: 10.1016/j.amepre.2010.06.006

- Committee on the Future Health Care Workforce for Older Americans, I. o. M. Retooling for an Aging America: Building the Health Care Workforce. The National Academies Press; 2008.
- Cornoni-Huntley JC, Foley DJ, Guralnik JM. Co-morbidity analysis: a strategy for understanding mortality, disability and use of health care facilities of older people. *Int J Epidemiol*. 1991; 20(Suppl 1):S8–17. [PubMed: 9119546]
- Creswell, J. Qualitative inquiry and research design: Choosing among five traditions. Thousand Oaks, CA: Sage Publications; 1998.
- DiClemente CC, Marinilli AS, Singh M, Bellino LE. The role of feedback in the process of health behavior change. *Am J Health Behav*. 2001; 25(3):217–227. [PubMed: 11322620]
- Dolor RJ, Ostbye T, Lyna P, Coffman CJ, Alexander SC, Tulsy JA, Pollak KI. What are physicians' and patients' beliefs about diet, weight, exercise, and smoking cessation counseling? *Prev Med*. 2010; 51(5):440–442. DOI: 10.1016/j.ypmed.2010.07.023 [PubMed: 20692283]
- Entwistle VA, Watt IS. Treating Patients as Persons: A Capabilities Approach to Support Delivery of Person-Centered Care. *The American Journal of Bioethics*. 2013; 13(8):29–39. DOI: 10.1080/15265161.2013.802060
- Esler JL, Bock BC. Psychological treatments for noncardiac chest pain: recommendations for a new approach. *J Psychosom Res*. 2004; 56(3):263–269. DOI: 10.1016/s0022-3999(03)00515-4 [PubMed: 15046961]
- Følling IS, Solbjør M, Helvik AS. Previous experiences and emotional baggage as barriers to lifestyle change – a qualitative study of Norwegian Healthy Life Centre participants. *BMC Family Practice*. 2015; 16(1):73.doi: 10.1186/s12875-015-0292-z [PubMed: 26100276]
- Fonarow GC. In-hospital initiation of statins: taking advantage of the 'teachable moment'. *Cleve Clin J Med*. 2003; 70(502(6)):504–506.
- Fortin M, Bravo G, Hudon C, Vanasse A, Lapointe L. Prevalence of multimorbidity among adults seen in family practice. *Ann Fam Med*. 2005; 3(3):223–228. DOI: 10.1370/afm.272 [PubMed: 15928225]
- Frank L, Kerr J, Rosenberg D, King A. Healthy aging and where you live: community design relationships with physical activity and body weight in older Americans. *J Phys Act Health*. 2010; 7(Suppl 1):S82–90. [PubMed: 20440017]
- Galuska D, Serdula M, Brown D, Kruger J. Prevalence of health-care providers asking older adults about their physical activity levels —United States, 1998. CDC: Morbidity and Mortality Weekly Report. 2002; 51(19):412–414. Retrieved from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5119a2.htm#tab2>. [PubMed: 12033477]
- Greenlund KJ, Giles WH, Keenan NL, Croft JB, Mensah GA. Physician advice, patient actions, and health-related quality of life in secondary prevention of stroke through diet and exercise. *Stroke*. 2002; 33(2):565–570. [PubMed: 11823671]
- Gritz ER, Fingeret MC, Vidrine DJ, Lazev AB, Mehta NV, Reece GP. Successes and failures of the teachable moment: smoking cessation in cancer patients. *Cancer*. 2006; 106(1):17–27. DOI: 10.1002/cncr.21598 [PubMed: 16311986]
- Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res*. 2005; 15(9):1277–1288. DOI: 10.1177/1049732305276687 [PubMed: 16204405]
- Jay M, Gillespie C, Schlair S, Sherman S, Kalet A. Physicians' use of the 5As in counseling obese patients: is the quality of counseling associated with patients' motivation and intention to lose weight? *BMC Health Services Research*. 2010; 10(1):159.doi: 10.1186/1472-6963-10-159 [PubMed: 20534160]
- Lawson PJ, Flocke SA. Teachable moments for health behavior change: a concept analysis. *Patient Educ Couns*. 2009; 76(1):25–30. DOI: 10.1016/j.pec.2008.11.002 [PubMed: 19110395]
- Leiferman J, Sinatra E, Huberty J. Pregnant Women's Perceptions of Patient-Provider Communication for Health Behavior Change during Pregnancy. *Open Journal of Obstetrics and Gynecology*. 2014; 04(11):13.doi: 10.4236/ojog.2014.411094
- Levine DM, Savarimuthu S, Squires A, Nicholson J, Jay M. Technology-Assisted Weight Loss Interventions in Primary Care: A Systematic Review. *Journal of General Internal Medicine*. 2015; 30(1):107–117. DOI: 10.1007/s11606-014-2987-6 [PubMed: 25134692]

- McBride CM, Emmons KM, Lipkus IM. Understanding the potential of teachable moments: the case of smoking cessation. *Health Educ Res.* 2003; 18(2):156–170. [PubMed: 12729175]
- Moore LV, Dodd KW, Thompson FE, Grimm KA, Kim SA, Scanlon KS. Using Behavioral Risk Factor Surveillance System Data to Estimate the Percentage of the Population Meeting US Department of Agriculture Food Patterns Fruit and Vegetable Intake Recommendations. *American Journal of Epidemiology.* 2015; 181(12):979–988. DOI: 10.1093/aje/kwu461 [PubMed: 25935424]
- Morse JM, Barrett M, Mayan M, Olson K, Spiers J. Verification strategies for establishing reliability and validity in qualitative research. *International Journal of Qualitative Methods.* 2002; 1(2) Retrieved from <https://ejournals.library.ualberta.ca/index.php/IJQM/article/viewArticle/4603>.
- Nunes JC, Drèze X. The Endowed Progress Effect: How Artificial Advancement Increases Effort. *Journal of Consumer Research.* 2006; 32(4):504–512. DOI: 10.1086/500480
- Potempa KM, Butterworth SW, Flaherty-Robb MK, Gaynor WL. The Healthy Ageing Model: health behaviour change for older adults. *Collegian.* 2010; 17(2):51–55. [PubMed: 20738056]
- Rubak S, Sandbæk A, Lauritzen T, Christensen B. Motivational interviewing: a systematic review and meta-analysis. *British Journal of General Practice.* 2005; 55(513):305–312. [PubMed: 15826439]
- Sciamanna CN, Goldstein MG, Marcus BH, Lawrence K, Pinto BM. Accuracy of recall of exercise counseling among primary care patients. *Prev Med.* 2004; 39(6):1063–1067. DOI: 10.1016/j.ypmed.2004.02.005 [PubMed: 15539037]
- Sciamanna CN, Tate DF, Lang W, Wing RR. Who reports receiving advice to lose weight? Results from a multistate survey. *Arch Intern Med.* 2000; 160(15):2334–2339. DOI: 10.1001/archinte.160.15.2334 [PubMed: 10927731]
- Sussman AL, Williams RL, Leverence R, Gloyd PW Jr, Crabtree BF. The art and complexity of primary care clinicians' preventive counseling decisions: obesity as a case study. *Ann Fam Med.* 2006; 4(4):327–333. DOI: 10.1370/afm.566 [PubMed: 16868236]
- The American Geriatrics Society. Ambulatory tables. 2012. Retrieved from http://www.americangeriatrics.org/advocacy_public_policy/gwps/gwps_data_center/practice_of_geriatrics
- Thompson PD, Buchner D, Pina IL, Balady GJ, Williams MA, Marcus BH, Wenger NK. Exercise and physical activity in the prevention and treatment of atherosclerotic cardiovascular disease: a statement from the Council on Clinical Cardiology (Subcommittee on Exercise, Rehabilitation, and Prevention) and the Council on Nutrition, Physical Activity, and Metabolism (Subcommittee on Physical Activity). *Circulation.* 2003; 107(24):3109–3116. DOI: 10.1161/01.cir.0000075572.40158.77 [PubMed: 12821592]
- Weber, RP. Basic Content Analysis. 2nd. Newbury Park, CA: 1990.
- Yarnall KS, Pollak KI, Ostbye T, Krause KM, Michener JL. Primary care: is there enough time for prevention? *Am J Public Health.* 2003; 93(4):635–641. [PubMed: 12660210]

Clinical Implications

- Primary care providers are well situated to help their older patients with lifestyle change.
- Positive relationships with patients and a positive perspective on aging increase the likelihood a provider can positively influence patients' health behavior choices. Unfortunately, when patients feel their providers know them well, providers' lack of engagement in discussions can be interpreted as implicit acceptance of current behaviors.
- To maximize their ability to influence lifestyle change, providers should serve as coaches, encouraging change, personalizing discussions, helping to identify goals and plans to achieve those goals, providing feedback on efforts made, and alleviating concerns.

Table 1

Patient Characteristics, N=104

Characteristics	
<i>Age, mean (SD, range)</i>	73.0 (6.4, 65-95)
<i>Sex, No. (%)</i>	
Male	48 (46.2)
Female	56 (53.9)
<i>Marital Status, No. (%)</i>	
Married/partnered	61 (58.7)
Separated/Divorced	18 (17.3)
Widowed	22 (21.2)
Single, never married	3 (2.9)
<i>Education, No. (%)</i>	
<High School	16 (15.4)
High School/GED	16 (15.4)
Some college/AA degree/tech school	25 (24.0)
College graduate	47 (45.2)
<i>Perceived Financial Status, No. (%)</i>	
More than enough	60 (57.7)
Just enough	24 (23.1)
Struggle to get by	20 (19.2)
<i>Race/Ethnicity, No. (%)</i>	
White, not Hispanic	85 (81.7)
White, Hispanic	2 (1.9)
Asian, not Hispanic	2 (1.9)
African American, not Hispanic	15 (14.4)
<i>Number of visits to provider last year, mean (sd, range)*</i>	3.9 (3.2, 1-20)
<i>Duration of seeing same provider (years), mean (sd, range)*</i>	6.5 (7.4, 0-35)

* If patient provided a range, we took the midpoint of the range (e.g. 4 to 5 visits was interpreted as 4.5 visits).