

Wellness Coaching to Improve Lifestyle Behaviors Among Adults With Prediabetes: Patients' Experience and Perceptions to Participation

Journal of Patient Experience

1-6

© The Author(s) 2018

Reprints and permission:

sagepub.com/journalsPermissions.nav

DOI: 10.1177/2374373518769118

journals.sagepub.com/home/jpx



Ramona S. DeJesus, MD^{1,2}, Matthew M. Clark, PhD³, Lila J. Finney Rutten, PhD^{1,4}, Julie C. Hathaway, MS⁵, Patrick M. Wilson, MPH⁶, Sara M. Link, MS⁷, and Jennifer St. Sauver, PhD^{1,4}

Abstract

Background: Health and Wellness Coaching has been shown to enhance treatment outcomes in the primary care setting. However, little is known about the experience and perceptions of patients who worked with a wellness coach as an integrated member of their primary health-care team. **Objective:** This project assessed patients' experience and obtained their perceptions on barriers and facilitators to participation in a primary care-based wellness coaching program. **Method:** A survey was mailed to 99 primary care patients with prediabetes who participated in a 12-week wellness coaching program. **Results:** Sixty-two (63%) completed the survey; responders felt that participation in the wellness coaching program helped move them toward healthier lifestyle behavior and created a personal vision of wellness. Major themes associated with participation were supportive coaching relationship, increased self-accountability, increased goal-setting, and healthy behavior strategies. No significant barrier to participation was reported. **Conclusion:** Participants reported highly positive experience with the program; how to best integrate health and wellness coaching into the primary care setting needs to be explored.

Keywords

prediabetes, wellness coaching, patient experience, satisfaction

Background

Thirty-seven percent of US adults have prediabetes based on fasting glucose or hemoglobin A_{1C} levels and 70% of patients with prediabetes are expected to develop diabetes within 10 years (1,2). Fortunately, the progression of prediabetes to diabetes may be prevented or delayed with moderate weight loss (5%-7% total body weight) achieved through positive lifestyle interventions (3-5). Many individuals struggle with implementing positive lifestyle changes; hence, a major challenge is enabling and motivating individuals to initiate and maintain healthy lifestyle changes.

Health and Wellness coaching are a patient-centered intervention in which a health and wellness coach guides patients in making behavioral changes by encouraging active participation in his or her self-management based on personal goals and individual motivational readiness to change (6,7). This empowerment-based self-management strategy focuses on improving self-efficacy and has been shown to

¹ Robert D and Patricia E Kern Center for the Science of Health Care Delivery, Mayo Clinic, Rochester, MN, USA

² Division of Primary Care Internal Medicine, Department of Medicine, Mayo Clinic, Rochester, MN, USA

³ Department of Psychiatry and Psychology, Mayo Clinic, Rochester, MN, USA

⁴ Division of Epidemiology, Department of Health Sciences Research, Mayo Clinic, Rochester, MN, USA

⁵ Office of Patient Education and Consulting Services, Mayo Clinic, Rochester, MN, USA

⁶ Division of Biomedical Statistics and Informatics, Department of Health Sciences Research, Mayo Clinic, Rochester, MN, USA

⁷ Dan Abrahams Healthy Living Center, Mayo Clinic, Rochester, MN, USA

Corresponding Author:

Ramona S. DeJesus, Robert D and Patricia E Kern Center for the Science of Health Care Delivery, Mayo Clinic, 200 First Street SW, Rochester, MN 55905, USA.

Email: dejesus.ramona@mayo.edu



Creative Commons Non Commercial CC BY-NC: This article is distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 License (<http://www.creativecommons.org/licenses/by-nc/4.0/>) which permits non-commercial use, reproduction and distribution of the work without further permission provided the original work is attributed as specified on the SAGE and Open Access pages (<https://us.sagepub.com/en-us/nam/open-access-at-sage>).

result in positive clinical outcomes and sustained behavioral change across a range of behaviors and populations (8–12).

We conducted a single arm cohort study between January and July, 2016 to assess whether an individualized 12-week Health and Wellness Coaching intervention delivered by certified health and wellness coaches would improve self-reported changes in physical activity level and food choices among primary care patients with prediabetes. We observed significant improvement in self-reported behaviors of physical activity and healthy eating choices as early as 6 weeks into the health and wellness coaching program delivered in the primary care setting, with continued improvement at 12 weeks and sustained results at 24 weeks (13). We saw similar trends toward improvement with self-efficacy and quality of life outcomes. As this was a different approach to diabetes prevention which utilized only behavioral intervention delivered by coaches, we were interested in capturing participants' experience with the program and perceived facilitators and barriers. To achieve this aim, we implemented a survey of participants in the Health and Wellness coaching program. In this article, we described the results of this survey with a focus on the qualitative analysis of patient responses to the open-ended questions.

Methods

Participants and Procedure

Five hundred sixty patients with prediabetes, paneled to a provider in Primary Care Internal Medicine, in Mayo Clinic Rochester, were invited to participate in a 12-week Health and Wellness Coaching program through e-mailed recruitment letters. Baseline questionnaires and Health Insurance Portability and Accountability Act of 1996 (HIPAA) authorization forms were e-mailed with the recruitment letters; consented participants were requested to e-mail the completed forms back. Patients were eligible if they were between 18 and 80 years of age at the time of study initiation, had prediabetes based on the American Diabetes Association's definition of fasting plasma glucose 101 to <126 mg/dL or HbA_{1c} 5.7% to 6.4% (14) as the most recent value in the electronic medical record within 12 months of recruitment date, had a documented and working telephone number, were able to participate fully in all aspects of the study, and were able to provide written informed consent. Once inclusion criteria were met, participants were scheduled for an initial wellness coaching session by a Clinical Research Coordinator.

Four certified wellness coaches delivered the intervention. Wellness coaches in this project had at least a 4-year degree and had received training and certification from the Mayo Clinic Wellness Coaching Training Program. The program consisted of 12 sessions which were completed within 16 weeks and were conducted at the participants' primary clinic site. Coaching centered on participants' wellness goals; however, the coaches were requested to primarily address goals related to physical activity, healthy eating

behavior, or both. The initial wellness coaching session was conducted face-to-face to assess the participant's strengths, motivation to change and perceived barriers. Participants then determined their preferred approach for the subsequent visits: in-person or telephone-based wellness coaching. In-person coaching sessions were all conducted within the primary care clinic setting; the coaches interfaced with the primary care providers in person or through electronic communication. There was no cost to participate in the study, a parking voucher to the primary care clinic building was provided. Details of the study were reported elsewhere (13).

Study participants were asked to complete mailed out study questionnaires before their first wellness coaching session (baseline, week 0), at 6 weeks, at the end of wellness coaching (12 weeks), and at 24 weeks. A survey was also mailed at the end of 12 weeks of the Health and Wellness Coaching program to these 99 patients; 62 (63%) completed and returned the survey. A second mailing was not done.

Measures

The survey instrument included closed- and open-ended questions, as well as Likert scale questions which asked the study participants to rate their responses from 0 (not at all) to 10 (very much). The survey was comprised of 14 items that assessed various aspects of Health and Wellness Coaching. It was adopted from a previously developed questionnaire used to obtain participants' feedbacks on the Health and Wellness Coaching program offered at our institution. The first 4 items asked participants the extent to which Wellness Coaching program helped in changing their behavior, what its most and least helpful aspects were and how they perceived their relationship with the coach. Subsequent items focused on the coaching process and included questions that asked participants how the Wellness Coaching program helped increase self-motivation, to what extent it increased their use of goal setting and problem-solving skills, and to what extent it helped them get back on track after running into barriers. A copy of the survey is available upon request from the corresponding author.

To help in planning and refining future wellness coaching interventions, the health and wellness coaches were also requested to write in comments at the end of each session on what they perceived might be barriers to patient engagement. At the end of 12-week program, participants were also asked their coaching preference. Data were captured using RedCap, a secure, web-based application for building and managing surveys and databases.

Statistical Analysis

Descriptive statistics (mean [standard deviation, SD]) were used to tabulate data from the survey questions with Likert-scale responses. Responses to the open-ended items were coded using the method of conventional content analysis by 2 independent analysts and categorized into major themes

Table 1. Participant Ratings of Wellness Coaching on a 10-Point Likert Scale.

Question	Mean (SD) ^a
To what extent did participation in wellness coaching:	
1. Changed you/your behavior	8.06 (1.41)
2. Helped create a personal vision of wellness	8.13 (1.61)
3. Increase your confidence to take steps to greater wellness	7.97 (1.89)
4. Increase your motivation to take steps to greater wellness	8.10 (1.78)
5. Increase your use of goal setting skills	7.47 (2.01)
6. Increase your use of problem-solving skills	6.31 (2.72)
7. Help get you back on track after running into barriers	7.83 (2.06)
8. Help you achieve greater wellness	7.93 (1.79)

Abbreviation: SD, standard deviation.

^aScale of 0 to 10 with 0 (not at all) to 10 (very much).

(15). Coding categories were derived and formulated from text data. Only survey responses were coded.

Results

Sixty-two (63%) of the 99 participants who had at least 1 session of the Health and Wellness coaching, completed the survey at 12 weeks. The respondents were predominantly Caucasian (92%), with median age of 68 years. There were 34 female and 28 male responders. Study participants and study nonparticipants did not differ significantly in age, sex, baseline glucose, or hemoglobin A_{1C} level. Demographic characteristics between those who completed at least 6 sessions and those who did not were also not statistically different (data not shown).

Ratings of Wellness Coaching

Participants were asked to rate the extent to which participation in the Health and Wellness Coaching changed their behavior. On a Likert scale of 0 (not at all) to 10 (very much), the majority of participant respondents reported that it changed their behavior “quite a bit” (mean: 8.06 [SD 1.41]). With regard to what extent participating in wellness coaching helped create a personal vision of wellness, participants again responded “quite a bit” (mean 8.16 [SD 1.61]). A number of questions evaluated the extent to which participating in the Health and Wellness Coaching program enhanced one’s confidence and motivation to take steps toward greater wellness, as well as increased goal setting skills. Responses to these items were similarly very positive (mean 8.10 and 7.47, respectively); mean response was lowest to the question on whether wellness coaching increased the use of problem-solving skills (mean 6.31). Respondents also reported that their experience with wellness coaching helped them get back on track after running into barriers or problems and helped them achieve greater wellness (see Table 1).

Table 2. Predominant Themes on What Was Most Helpful About Participating in Health and Wellness Coaching in the Primary Care Setting.

Predominant Themes	Representative Quotes
Coaching relationship/ positive attributes	New/sharing of ideas; someone to talk to Experiencing new point of view on wellness The encouragement and support; experienced coach; positive conversations Getting professional help, not guessing
Accountability	Being accountable and knowing I had goals Setting targets; regular check-ins
Goal setting/motivation/ self-awareness	Setting goals to be healthier, reinforce progress, one-on-one goal setting with coach Growth in introspection; know where I need to go; focus more on what I’m doing for myself
Specific exercise/diet behavior strategies	How to make better choices in eating/ exercise; small steps can make a difference Ideas to implement better timing of snacks; limit food portions; tracked food intake Ideas on what I can do during the day to get moving and not just sit in front of computer

In another question with “yes” and “no” response, participants unanimously reported that they would recommend Health and Wellness Coaching to other patients receiving care in the primary care setting.

Themes Around Participant Experience With Wellness Coaching

When asked what was most helpful about participating in the Health and Wellness Coaching program, the 4 main themes that emerged were as follows: positive interaction/attributes of the health and wellness coach, sense of personal accountability, goal setting/motivation, and specific exercise or diet strategies (see Table 2). As to what was least helpful about their participation in Health and Wellness Coaching, most (n = 43) responded “none” and stated that Health and Wellness Coaching was “all helpful”. Eleven participants described the following as barriers to participation or shortcomings of the coaching: “sessions too long or too short,” “repetitive discussion points,” “specific skills not taught,” and “phone rather than face-to-face contacts.” The rest felt challenged at making behavioral change, prioritizing goals, and keeping motivated.

A major theme that emerged in response to the question on “what about the relationship with the coach was most helpful to you” was the encouraging, nonjudgmental, and accepting attitude of the wellness coaches. Example comments

Table 3. How Wellness Coaching Participation Helped Create a Personal Vision of Wellness.

Predominant Themes	Representative Quotes
Helped build a general vision of wellness	Embraced a health personal vision in my life Changed who outlook to my health; how I can control many areas that affect my health I now see how I can get to my goals and stay there; know that if I follow what I learned, I will be healthier
Helped be more focused	Before wellness was vague; this helped focus where I want to be and how to get there Attention; had not been paying attention to my well-being and needed an attitude adjustment Pushed me to be more deliberate in following healthy lifestyle habits
Empowered self/ increased goal setting	Made me realize that vision of wellness is not just weight loss but in one's ability to gain strength and endurance Explored and visualized emotional reasoning on how to achieve goals Came to understand that motivation had to come from within Discovered that there is still a lot of wonderful things I can expect in life; made me feel important

illustrating this theme include the following: “my wellness coach was easy going and not judgmental,” my wellness coach was “encouraging without being pushy, reinforcing, not critical,” and “understanding, very supportive.” The second major theme to emerge from response to this question was the ease of building a relationship with the health and wellness coach which was reflected through statements such as the following: “I was able to open up to my wellness coach,” “She related to me and gave me support,” “We are both willing to listen to each other,” and “Enjoyed each weekly visit.”

The following themes emerged in response to the question on how participation in wellness coaching helped create a personal vision of wellness: building a vision of wellness through goal setting, becoming more focused on well-being, developing a sense of self-empowerment through building awareness of one's strengths and self-accountability (see Table 3).

Responses on how Health and Wellness Coaching helped get the participant back on track after running into barriers were grouped into 3 themes: applying knowledge acquired in sessions, learning positive self-talk, and obtaining a more optimistic outlook and goal setting. Comments such as “letting go during bad days and giving yourself permission to go right back at it,” “set-back isn't a failure, just try again,” “see big picture but in small pieces so failure does not mean total loss,” “no negative self-talk, pick yourself up, and start a new day,” and “accept that there will be bumps in the road to wellness and

better health, be able to forgive yourself and go forward” are examples of how participants described learned behaviors for coping with barriers. The majority of respondents indicated an intention to continue with changes made during their participation in Health and Wellness Coaching; they emphasized the need to maintain a positive focus, continue moving forward, and avoid sliding back into unhealthy behaviors.

A few responders offered the following suggestions for improving the program: provide greater tailoring of the program to individual's physical abilities, offer the program for a shorter time period, offer the program to younger participants, and offer the program to people with specific diseases. Some participants initially expressed skepticism about the program to their wellness coaches but were appreciative at the conclusion of the sessions with statements such as: “wasn't sure about this wellness coaching ‘thing’ but it REALLY works!,” “would not have been successful with weight loss if it wasn't for this study and wellness coach.” The following comment on wellness coaching from 1 elderly participant seemed to capture the value of this program from the patient perspective: “there are many people that need encouragement as to how to get going to wellness and that is why it is so needed.”

Several comments shared by participants with their health and wellness coaches suggested that “a wellness coach should be part of primary health team” and that “intervention like this can provide a reduced-cost way of combating problems for people who want to make lifestyle changes.” Although some participants would consider attending group coaching sessions given this alternative, more participants would prefer to receive one-on-one coaching.

Discussion

Primary care patients with prediabetes who participated in a 12-week Health and Wellness Coaching program and demonstrated significant improvements in their health status (13) also expressed a high level of satisfaction with the program and positively endorsed working with a wellness coach in the primary care setting. This was reflected in responses to the survey sent to participants at the completion of the program and in uncoded comments captured by the wellness coaches during wellness coaching sessions. Although certain challenges such as difficulty keeping motivated and meeting set goals were mentioned, participants overall found all aspects of wellness coaching to be helpful.

Goal setting skills are crucial to engage in positive behavior change; problem-solving skills in contrast are essential to maintaining positive behavioral changes. Although baseline data were not captured, the responders reported improvement in both goal setting and problem-solving skills and they affirmed that these skills enabled them to create and achieve a vision of wellness. Goal setting/self-awareness is one of the major themes identified as most helpful learned skills by participants. Increase in goal setting skills had previously been observed in a wellness coaching intervention and is a powerful motivator for change (11,16); similar

observations in this study suggest fidelity in adherence to the wellness coaching process with attainment of these intended outcomes. Enhanced goal setting skills translates to increased self-efficacy which then promotes healthy lifestyle behavior in both diet and physical activity (12,17).

Positive interactions with the health and wellness coaches and personal attributes were also major themes identified from participants' responses on what aspects of wellness coaching were most helpful. The health and wellness coaches were perceived as supportive, nonjudgmental, and accepting. They were described as: "willing to listen and not judge me," "consistently encouraging without being pushy," "positive and open to suggestions," "reinforcing but not critical." These reported attributes reflected a strong therapeutic relationship which has been shown in prior studies to result in enhanced self-management skills (18,19). Participants reported that the health and wellness coaches understood where they were coming from and steered them toward the wellness goals they wanted to achieve. By enabling their clients to develop their inner wisdom and become their "inner coach," the health and wellness coaches helped individuals become powerful motivators for behavioral change (16) and develop a personal vision of wellness. With positive reinforcements and encouragement from their coaches, participants likewise felt "not isolated" in overcoming barriers encountered which further fostered self-efficacy.

Wellness coaching delivered in the primary care setting was well received by participants. However, there was an expressed preference for individual rather than group wellness coaching sessions among the participants. Although studies on Health and Wellness Coaching had showed similar efficacy in facilitating goal attainment through individual and group wellness coaching interventions, individual wellness coaching has been associated with higher degree of participant satisfaction (20).

A handful of participants felt the 12-week program to be too long and was one of the least helpful features of coaching; preference for face-to-face over phone encounters was also expressed. In looking at potential ways for delivering wellness coaching with more flexibility such as through telemedicine, smartphone-based health coaching has showed promise in an initial study (19). Further research is needed to refine and explore innovative ways of delivering individualized wellness coaching to this population group while being mindful of available personnel and financial resources in the primary care setting.

Study Strength and Limitation

Whereas experiences of persons living with chronic illnesses who received wellness coaching have been reported (16, 19), qualitative data on wellness coaching among those at risk of chronic diseases remain scarce. Results of this study among patients with prediabetes provided relevant information on patients' experience and preferences regarding wellness coaching delivered in primary care setting to this population group.

Captured data also confirmed the vital role that wellness coaching may play in moving individuals who are at a high risk of developing chronic illnesses toward lifestyle changes.

There were several important limitations to this study. Answers to the questionnaires from the 62 responders may not be representative of the attitudes of larger group of participants in wellness coaching program. Those who did not like their experience with wellness coaching may have decided not to complete the satisfaction survey which potentially led to bias in results. Although wellness coaches' comments provided some insight on session-specific interactions with participants, the amount of qualitative data collected was limited by the study survey approach. In-depth individual interviews or focus groups with key participants (health and wellness coaches, patients, and primary care providers) would provide greater understanding of the strengths and weaknesses of primary care-based Health and Wellness Coaching. Finally, responders were community based, largely Caucasian patients seen at a primary care clinic of an academic institution in Midwestern United States, so results may not be generalizable to other population groups with different characteristics.

Summary and Conclusion

Adding a health and wellness coach to the primary care team is a fairly new intervention in disease prevention among high-risk patients. The aim of this project was to assess the perceptions and experiences of working with a health and wellness coach to support lifestyle changes aimed at reducing their risk of progression to diabetes among patients with prediabetes. Participants in a 12-week Health and Wellness coaching program were surveyed. In general, participants described very positive experience with coaching reflected in major themes and reported learning important skills for positive lifestyle change. Further research is needed to explore how to tailor Health and Wellness Coaching to the needs of the specific patients and how to best integrate Health and Wellness Coaching into the primary care setting.

Acknowledgment

This project was supported by several individuals. The authors express their appreciation to Ashley Quinnell who was our study coordinator, Debra Judy for their assistance in data entry and retrieval, Dr Kristin Vickers Douglas for her expertise and guidance in wellness coaching process. The authors are also grateful to our wellness coaches: Mohamed Osman, Melissa Mapes, Karin Pyan, and Sara Link.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

References

1. National Diabetes Statistics Report, 2017. National Center for Chronic Disease Prevention and Health Promotion. <https://www.cdc.gov/diabetes/data/statistics/statistics-report.html> (assessed 30 March 2018).
2. Tabák AG, Herder C, Rathmann W, Brunner EJ, Kivimäki M. Prediabetes: a high-risk state for diabetes development. *Lancet*. 2012;379:2279-90.
3. Knowler WC, Barrett-Connor E, Fowler SE, Hamman RF, Lachin JM, Walker EA, et al; the Diabetes Prevention Program Research Group. Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *N Engl J Med*. 2002;346:393-403.
4. Perreault L, Temprosa M, Mather KJ, Horton E, Kitabchi A, Larkin M, et al. Regression from prediabetes to normal glucose regulation is associated with reduction in cardiovascular risk: results from the diabetes prevention program outcomes study. *Diabetes Care*. 2014;37:2622-31.
5. Stevens JW, Khunti K, Harvey R, Johnson M, Preston L, Woods HB, et al. Preventing the progression to type 2 diabetes mellitus in adults at high risk: a systematic review and network meta-analysis of lifestyle, pharmacological and surgical interventions. *Diabetes Res Clin Pract*. 2105;107:320-31.
6. Mettler EA, Preston HR, Jenkins SM, Lackore KA, Werneburg BL, Larson BG, et al. Motivational improvements for health behavior change from wellness coaching. *Am J Health Behav*. 2014;38:83-91.
7. Lindner H, Menzies D, Kelly J, Taylor S, Shearer M. Coaching for behavior change in chronic disease: a review of the literature and the implications for coaching as a self-management intervention. *Aust J Prim Health*. 2003;9:177-85.
8. Tang TS, Funnell MM, Oh M. Lasting effects of a 2-year diabetes self-management support intervention: outcomes at 1 year follow-up. *Prev Chronic Dis*. 2012;9:E109.
9. Benzo R, Vickers K, Novotny PJ, Tucker S, Hoult J, Neuenfeldt P, et al. Health coaching and chronic obstructive pulmonary disease rehospitalization: a randomized study. *Am J Respir Crit Care Med*. 2016;194:672-80.
10. Olsen JM, Nesbitt BJ. Health coaching to improve healthy lifestyle behaviors: an integrative review. *Am J Health Promot*. 2010;25:e1-2.
11. Clark MM, Bradley KL, Jenkins SM, Mettler EA, Larson BG, Preston HR, et al. Improvement in health behaviors, eating self-efficacy and goal-setting skills following participation in wellness coaching. *Am J of Health Promot*. 2016;30:458-64.
12. Rehman H, Karpman C, Vickers Douglas K, Benzho RP Effect of a motivational interviewing-based health coaching on quality of life in subjects with COPD. *Respir Care*. 2017;62:1043-8.
13. DeJesus R, Clark MM, Rutten LJ, et al. Impact of a 12-week wellness coaching on self-care behaviors among primary care adult patients with prediabetes. *Preventive Med. Reports*. 2018;10:100-5.
14. Diagnosis and classification of diabetes mellitus. *Diabetes Care*. 2013;36:S67-74.
15. Patton MQ. *Qualitative Research and Evaluation Methods*. 3rd Ed. Thousand Oaks, CA: Sage Publications; 2002.
16. Howard LM, Hagen BF. Experiences of persons with type II diabetes receiving health coaching: an exploratory qualitative study. *Educ Health*. 2012;25:66-9.
17. Block G, Azar KM, Romanelli RJ, Block TJ, Palaniappan LP, Dolginsky M, et al. Improving diet, activity and wellness in adults at risk of diabetes: randomized controlled trial. *Nutr Diabetes*. 2016;6:e231.
18. Thom DH, Wolf J, Gardner H, DeVore D, Lin M, Ma A, et al. A qualitative study of how health coaches support patients in making health-related decisions and behavioral changes. *Ann Fam Med*. 2016;14:509-16.
19. Pludwinski S, Ahmad F, Wayne N, Ritvo P. Participant experiences in a smartphone-based health coaching intervention for type 2 diabetes: a qualitative inquiry. *J Telemed Telecare*. 2016;22:172-8.
20. Losch S, Traut-Mattousch E, Muhlberger MD, Jonas E. Comparing the effectiveness of individual coaching, self-coaching and group training: how leadership makes the difference. *Front Psychol*. 2016;7:629.

Author Biographies

Ramona S. DeJesus, MD, is an assistant professor of Medicine and consultant at the Division of Primary Care Internal Medicine. Her research interests are in population health with focus on high risk patients for chronic diseases as well as mental health in primary care.

Matthew M. Clark, PhD, is a professor of Psychology and consultant at the Department of Psychiatry and Psychology. He is an expert on resiliency and has led a number of studies on wellness coaching at Mayo Clinic Healthy Living Center.

Lila J. Finney Rutten, PhD, MPH, is a professor of Health Sciences Research in the Division of Epidemiology and the Robert D. and Patricia E. Kern scientific director of Population Health Science in the Kern Center for the Science of Healthcare Delivery at Mayo Clinic. Dr. Rutten directs a program of research focused on population health in primary care and community settings.

Julie C. Hathaway, MS, is an assistant professor of Medical Education with the Office of Patient Education. She has co-authored several qualitative studies on patient engagement in self-management programs, care coordination and coaching.

Patrick M. Wilson is a statistician at the Biomedical Statistics and Informatics Division of the Department of Health Sciences Research in Mayo Clinic.

Sara M. Link is a certified wellness coach and is the manager of the wellness coaching program at Dan Abrahams Healthy Living Center in Mayo Clinic.

Jennifer St. Sauver, PhD, is a professor of Epidemiology and the associate scientific director of the Population Health Program in the Center for the Science of Health Care Delivery. She is also the co-principal investigator of the Rochester Epidemiology Project, a National Institutes of Health-funded research infrastructure that collates and indexes health care information from virtually all sources of medical care available to residents of Olmsted County, Minnesota.