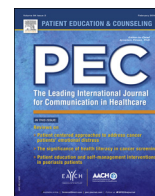


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Short Communication

Does health coaching change patients' trust in their primary care provider?

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ABSTRACT

Objective: To assess the impact of health coaching on patients' in their primary care provider.**Methods:** Randomized controlled trial comparing health coaching with usual care.**Participants:** Low-income English or Spanish speaking patients age 18–75 with poorly controlled type 2 diabetes, hypertension and/or hyperlipidemia.**Main outcome measure:** Patient trust in their primary care provider measured by the 11-item Trust in Physician Scale, converted to a 0–100 scale.**Analysis:** Linear mixed modeling.**Results:** A total of 441 patients were randomized to receive 12 months of health coaching ($n = 224$) vs. usual care ($n = 217$). At baseline, the two groups were similar to those in the usual care group with respect to demographic characteristics and levels of trust in their provider. After 12 months, the mean trust level had increased more in patients receiving health coaching (3.9 vs. 1.5, $p = 0.47$), this difference remained significant after adjustment for number of visits to primary care providers (adjusted $p = .03$). **Conclusions:** Health coaching appears to increase patients trust in their primary care providers.**Practice Implications:** Primary care providers should consider adding health coaches to their team as a way to enhance their relationship with their patients.© 2014 The Authors. Published by Elsevier Ireland Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/3.0/>).

1. Introduction

In primary care, there has been a move to share tasks and responsibilities traditionally reserved for the primary care provider (PCP) with other members of the patient care team, including medical assistants, nurses, pharmacists, patient educators and coaches [1]. This team approach is a central feature of the widely promoted primary care medical home (PCMH) model which has been successful in improving quality of care and patient satisfaction while holding down costs [2–6].

Concern has been raised regarding the impact of the 'team approach' on the quality of the physician–patient relationship [7]. While the relationship between patient and provider is multifaceted, patient trust seems to be a central aspect of the relationship highly valued by patients and clinicians [8–10] which predicts

continuity with the provider [11], adherence to medication and treatment plans [12–16], and utilization of recommended preventive services [17]. The addition of a health coach to the patient care team could potentially change patients' trust in their PCPs. For example, health coaching might 'replace' some of the trust-building interactions PCPs have their patients. By activating and empowering the patients to ask questions or disagree with their PCP, health coaching might undermine the provider–patient relationship and thereby reduce the level of patient trust. It is also possible that health coaches could increase patients' trust in their PCP, for example by improving communication.

We examined the impact of adding a health coach to the primary care team on patients trust in their PCP in the context of a randomized clinical trial of the impact health coach vs. usual care on control of chronic disease.

2. Methods

2.1. Study design

The Health Coaching in Primary Care (HCPC) study is a randomized controlled trial of 12 months of health coaching vs.

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usual care for low-income patients with poorly controlled type 2 diabetes, hypertension, and/or hyperlipidemia with the primary outcome being control of diabetes, hypertension, and/or hyperlipidemia. A detailed description of the HCPC study design and methods has previously been published [18]. In this paper we report on the effect of health coaching on patient trust in, and satisfaction with, their PCP.

2.2. Setting, participants, enrollment and randomization

The study was conducted at two federally qualified health centers ('safety-net clinics') in San Francisco between from March 2011 to May of 2013. Patients were considered eligible if they were between ages of 18 and 75, spoke Spanish or English, could be reached by phone, and had poorly controlled diabetes (HbA1C >8.0%), hypertension (systolic blood pressure \geq 140 mmHg for non-diabetic patients or \geq 130 for patients with diabetes), or hyperlipidemia (LDL \geq 160 mg/dl for non-diabetic patients or \geq 100 mg/dl for diabetic patients). A total of 664 eligible patients were identified at the two clinic sites, of which 441 (66.4%) were consented and enrolled (see Fig. 1). After enrollment and completion of baseline measures, participants were randomized to the health coaching arm ($n = 224$) or the usual care arm ($n = 217$) by opening the next randomly ordered, sealed envelope.

2.3. Health coaching intervention

Health coaches were certified medical assistants who attended 40 h of health coach training over six weeks using a curriculum developed by the study team that included instruction in using active listening and non-judgmental communication; helping with self-management skills for diabetes, hypertension, and hyperlipidemia; providing social and emotional support; assisting with lifestyle change; facilitating medication understanding and

adherence; navigating the clinic; and accessing community resources. A description of the curriculum can be found at <http://familymedicine.medschool.ucsf.edu/cepc/pdf/Health-CoachTrainingCurriculumJune12.pdf>.

Health coaches interacted with patients at medical visits, individual visits, and by phone calls. The minimum required frequency of contacts was once every three months for in-person visits (often as part of a medical visit) and monthly for additional contacts such as phone calls. During the medical visit, the health coach met with the patient before the visit for medication reconciliation, agenda-setting, and reviewing lab numbers. The health coach usually stayed in the exam room during the medical visit and met with the patient after the visit to review the care plan and check for patient understanding. The health coach also assisted the patient in making action plans to increase physical activity, improve healthy eating, reduce stress, or improve medication adherence [19]. In addition, the health coach facilitated navigation of other resources such as diagnostic imaging or referrals to specialists by making follow up appointments, or facilitating introductions to behaviorists or other clinic resources [20].

2.4. Usual care

Patients randomized to usual care continued to have visits with their clinician over the course of the 12-month period and had access to any additional resources that are part of usual care at the clinic, including diabetes educators, nutritionists, chronic care nurses, or educational classes.

2.5. Measures

Patient demographic characteristics were assessed by survey at the time of enrollment. Patients' trust in their PCP, was measured at baseline and 12 months using the previously validated Trust in

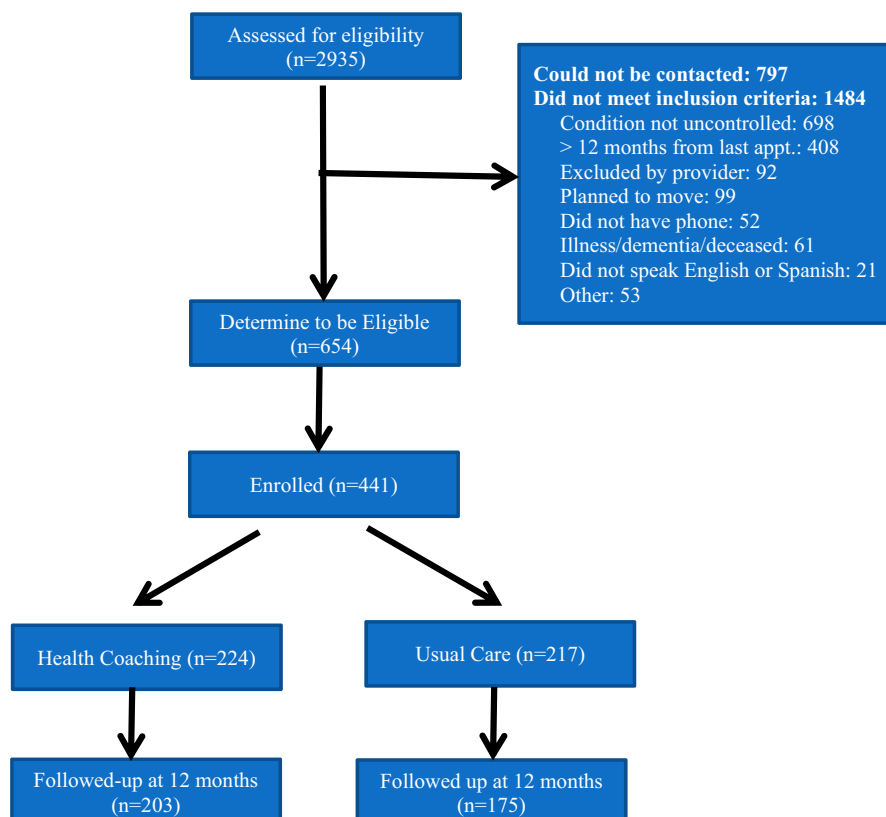


Fig. 1. CONSORT diagram.

Table 1
Demographic characteristics of participants by study arm.

	All participants Mean ± SD or % (n)	Usual care arm Mean ± SD or % (n)	Health coaching arm Mean ± SD or % (n)
Age	52.7 ± 11.1	52.9 ± 11.5	52.6 ± 10.7
Gender (female)	55.3% (244)	52.2% (127)	58.5% (117)
Married/long term relationship	53.1% (234)	57.1% (124)	49.1% (110)
Born in the US	25.6% (113)	24.9% (54)	26.3% (59)
Years in US (if born outside US)	18.2 ± 11.2	17.9 ± 11.9	18.5 ± 10.4
Primary language			
English	27.7% (122)	26.7% (58)	28.6% (64)
Spanish	68.7% (303)	69.5% (151)	67.9% (152)
Other	3.6% (16)	3.7% (8)	3.6% (8)
Race/ethnicity			
Asian	4.1% (18)	5.1% (11)	3.1% (7)
African American	19.0% (84)	18.4% (40)	19.6% (44)
Latino or Hispanic	70.1% (309)	71.0% (154)	69.2% (155)
White	2.5% (11)	2.3% (5)	2.7% (6)
Other	4.3% (19)	3.2% (7)	5.4% (12)
Working status			
Employed full time	18.6% (82)	16.1% (35)	21.0% (47)
Employed part time	25.6% (113)	26.3% (57)	25.0% (56)
Unemployed/homemaker	29.9% (132)	33.2% (72)	26.8% (60)
Retired/disabled/SSI/other	25.9% (114)	24.3% (53)	27.2% (61)
Education			
Less than 5th grade	22.7% (100)	23.1% (50)	22.3% (50)
6th to 8th grade	21.1% (93)	20.7% (45)	21.4% (48)
Some high school	13.4% (59)	12.4% (27)	14.3% (32)
High school grad or GED	17.7% (78)	16.6% (36)	18.8% (42)
Some college/college graduate	25.1% (111)	27.2% (59)	23.3% (52)
Income			
Less than 5 K	34.0% (150)	31.3% (68)	36.6% (82)
5–10 K	24.3% (107)	25.3% (55)	23.2% (52)
10–20 K	29.5% (130)	29.0% (63)	29.9% (67)
More than 20 K	12.2% (54)	14.2% (31)	10.2% (23)

None of the variables differed significantly by study arm.

Physician Scale (TIPS) [11,21]. Responses for each of the 11 items range from 1 to 5. The total score was transformed to a 0–100 scale for ease of presentation. Patient satisfaction with their PCP was assessed by a single item, “How likely would you recommend your doctor to your friend or relative?” with a response scale from 1= ‘definitely not recommend’ to 5= ‘definitely recommend’ analyzed as a dichotomous variable (‘definitely recommend’ vs. ‘not definitely recommend’) [22]. Number of visits to the patient’s primary care provider was ascertained from review of electronic records.

2.6. Statistical analysis

Analyses were by intention to treat and in accordance with the CONSORT guidelines for reporting results from clinical trials [23]. Group comparisons were conducted using chi-square test for categorical data and analysis of variance for normally distributed continuous variables. Changes in levels of patient trust and PCP visits were compared between study arms using a linear mixed model. Missing data was treated as missing (not imputed). All *p*-values are two-sided.

3. Results

Study participants in each study arm were similar with respect to demographic characteristics (Table 1), being predominately low-income foreign-born Latino or Hispanic, with African-Americans being the next largest ethnic group. The number of patient visits to their PCP in the past 12 months was also nearly identical by study arm at baseline, but decreased in the usual care but no in the coaching group during the 12 month study (Table 2). The mean level of patient trust in the PCPs were nearly identical at baseline but increased significantly more at 12 months in patients assigned to receive health coaching compared to those in usual care. Similarly, the proportion of patients who reported they would highly recommend their PCP was similar at baseline but increased significantly more in health coach group. Adjustment for number of visits did not substantially change the association between health coaching and increased patient trust. Additional adjustment for patient demographic characteristics and baseline levels of trust and satisfaction did not change these results (results not shown).

Table 2
Change in patient trust in the primary care provider (PCP) and number of visits to the PCP during 12 month intervention.

Outcome	Health coaching			Usual care			Difference in change	<i>p</i> -Value	Adjusted <i>p</i> -value
	Baseline Mean ± sd or %	12 month Mean ± sd or %	Change	Baseline Mean ± sd or %	12 month Mean ± sd or %	Change			
Number of visits to PCP in past 12 months	5.36 ± 3.93	5.29 ± 3.00	−0.07	5.47 ± 4.32	3.99 ± 3.37	−1.48	1.41	<.001	
Patient trust	72.4 ± 12.4	76.1 ± 12.1	+3.78	72.7 ± 12.7	74.1 ± 12.5	+1.38	2.41	.047	.033*
Highly recommend provider	59.1%	75.4%	+16.3%	56.6%	60.6%	+4.0%	12.3	.002	.015*

* Adjusted for number of visits to PCP during 12 month intervention.

4. Discussion and conclusions

4.1. Discussion

To our knowledge, this is the first randomized controlled trial to address the question of the impact of health coaching on the patients' relationship with their PCP. We found no evidence that the addition of health coaches to the patient care team adversely affected the patients' trust in, or satisfaction with, their PCPs; in fact both were higher at 12 months for patients in the coaching group. This improvement was not explained by the greater number of patient visits during the 12 month intervention. While the study was not designed to investigate the possible mechanisms by which health coaching could increase patients' trust in their PCPs, one possibility is that health coaches improve communication between patients and providers. Improved communication has been shown to increase interpersonal trust in [24,25] and is often mentioned as an important factor in building trust by both patients and providers [8,26].

A strength of the current study is the randomized controlled design which avoided the potential biases due to the patient self-selecting to receive health coaching or usual care. The study also had several limitations that should be considered when interpreting the results. Participants were primarily poor and Spanish-speaking; the impact of health coaching on the patient provider relationship might be different in a different population. Patient trust is only one aspect of the patient-provider relationship. The increases in patient trust and satisfaction seen in the coaching group, while significant, were relatively modest.

4.2. Conclusion

Results from the current study suggest that health coaches may increase patients' trust in their PCPs. This finding is reassuring as we move toward a more team-based approach to primary care, with other members of the health care team (medical assistants, nurses, pharmacists, patient educators and health coaches or patient navigators) sharing more responsibility for patient care.

4.3. Practice implications

Clinicians should be reassured that working with health coaches does not appear to compromise, and may in fact enhance, their relationships with their patients. Adding a health coach to the care team should be considered as a way to increase patient trust and satisfaction.

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