

Research Article

What Is The Potential For Family Physicians To Coach Patients' Self-Care Of Depression: An Exploratory Study

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ABSTRACT

Background: The potential for family physicians (FPs) to be self-care coaches for patients with depression was explored within a feasibility study examining lay coach support for self-care of depressive symptoms in adults with chronic physical illness.

Methods: FPs were approached from a list of 400 randomly generated urban FPs to assist recruitment of adults with chronic illness and depressive symptoms. Patients received, independent of usual FP care, six months of lay coaching for self-care of depression. Nested within this intervention FPs completed questionnaires at study entry and termination exploring how they normally used self-care, the degree to which they promoted it, and their hypothetical interest in coaching self-care. Two-sided paired T-tests and McNemar's tests were performed respectively for continuous and binary outcomes to assess significance of change from study onset to completion.

Results: 110 / 400 FPs were contactable and eligible. 63 consented to participate, and 4 withdrew at onset. Of the 59 FP participants 86% (51/59) completed entry questionnaires and 63% (37/59) terminal ones. For physical illness versus depression significantly more FPs were familiar with self-care ($p=0.002$) and felt it more effective ($p=0.013$). Of 7 targeted illnesses for which self-care might be recommended depression was ranked 5th by them. Attitudes and practice did not change as a result of study participation.

Conclusions: At present it is unlikely that FPs will act as depression self-care coaches, except perhaps on an individual basis. Changes in FP training, practice styles, practice support, and remuneration may be required to improve this.

MeSH Headings/Keywords: Family physicians, Depression, Self-care, Coaching

Introduction

Patient self-care, promoted for the management of chronic illness [1-3] has received as many as 139 definitions [4]. It has been characterized by the World Health Organization as the

ability of individuals, families and communities to promote and maintain health, prevent disease, and cope with illness and disability, with or without the support of a health-care provider [5]. A subset of self-care is self-management, which includes attending to symptoms, treatment, physical, psychosocial, and

cultural / spiritual consequences, as well as lifestyle changes required for living with a chronic disease [6]. Depression self-care may focus on exercise, nutrition, social activation, sleep patterns, adherence to recommended anti-depressant treatments, improving self-esteem, and monitoring physical and emotional states in order to adapt to meet changing needs [7]. Self-care may be done on one's own, or supported by individuals sometimes called coaches. Definitions of coaches vary [4], reflecting their diverse skills and backgrounds: e.g. doctors, nurses, health educators, pharmacists, nutritionists, medical assistants, community health workers, or trained lay coaches who may or may not have experienced personal illness [8].

Family physicians (FPs) may be presumed to be appropriate for coaching self-care given emphasis on continuity of care, knowledge about patients, potential for regular contact, and experience in treatment of chronic illness. An example of a common, serious and often chronic or relapsing illness in family practice is depression, which may co-exist with chronic physical illness [9]. Since depression treatment guidelines encourage low-intensity psychosocial interventions such as those based on principles of cognitive behavior therapy (CBT) instead of anti-depressants, [10] supported self-care interventions have been suggested as a treatment option [11,12]. For example, the British Columbia Practice Support Program promotes collaborative mental health care in which FPs are encouraged to coach patients as part of enhanced client partnership / self-management [13]. In the U.K., regional National Health Service [14,15] and online Royal College of General Practice programs [16] have been created to help general practitioners develop self-management support and communication skills. The actual provision of such coaching, however, may be challenging. A U.K. randomized control trial comparing those general practitioners who received some training to coach, compared to those who didn't, found no differences in patient outcomes [17].

We proposed to explore the potential for FPs as self-care coaches by enquiry of FPs participating in our feasibility study in Project DIRECT-sc (Depression Intervention via Referral, Education, and Collaborative Care-self-care), an uncontrolled trial of a lay coach-supported telephone depression self-care intervention (a tool-kit of depression-oriented materials) for people with chronic physical illness and co-morbid depressive symptoms [18]. Objectives were to identify (a) the proportion of FP participants with specific interest in self-care, or in actually coaching it; (b) their knowledge and views about the effectiveness of self-care for depression versus targeted physical illnesses; (c) the degree to which they recommended self-care to patients with depression versus physical illnesses, as well as helping them set self-care goals; and (d) whether their opinions or approaches changed during the course of the study.

Methods

Recruitment of family physicians: As part of the DIRECT-sc research program, the Research Ethics Committee of St. Mary's Hospital Center approved the recruitment of Montreal office-based FPs to participate in a study on lay coach support of self-care by patients who had depressive symptoms and co-morbid physical illness. Fifty FPs were estimated to be an adequate number to meet the objectives of this feasibility study. Projecting an attrition rate of 20%, the recruitment goal

became 60 doctors. The names of 2,239 Montreal FPs listed in the directory of the Quebec College of Physicians were assigned sequential numbers. We then generated a list of 400 random numbers, and moved successively through that list in groups of 40 FPs, mailing them letters containing introductory information on the study. They also indicated that a research assistant (RA) would be following up by telephone to request an appointment to discuss the study. At such meetings the RA enquired about and recorded factors that motivated the FPs to learn more about the study. Inclusion criteria were FPs working in English and / or French, in office practice within a thirty minute driving radius from the research center (to facilitate travel of the RA). Interested and eligible FPs were invited to sign the consent form for participation in this non-remunerated study.

Role of family physicians: Over a twelve month period following consent, FPs were asked to (a) help identify practice patients with depressive symptoms and at least one co-morbid chronic physical illness among six targeted ones (asthma, COPD, diabetes, arthritis, heart disease, hypertension), in order that the study staff could approach them for possible participation in a study that was telephone-based, outside of the clinic setting; (b) provide usual care to study patients; (c) self-complete at study entry a piloted, but non-validated questionnaire developed by the research team enquiring into FP demographics, practice characteristics, degree of collaboration with other health and social services personnel, management approaches (recommendation of self-care, or actual assistance with setting self-care goals) for depression and the six targeted chronic physical illnesses, familiarity with self-care, and impressions about its effectiveness; [18] (d) optionally review a binder they would receive containing the self-care tools given to the patients (video, CD, readings, mood monitoring records); and (e) when all patients affiliated with each FP finished their six months of coaching, FPs were asked to complete a piloted 33-item termination questionnaire, again enquiring about FPs' familiarity with self-care, impressions about its effectiveness, whether self-care was promoted in the practice and for what conditions. In addition FPs were asked if during the study there had been any communication between them and the study self-care coaches, whether FPs had reviewed the self-care tool binder, and if they or their patients had initiated discussion about the tools during usual FP care [18]. Finally, FPs were asked if, in the absence of a self-care coach, they would be interested in assuming such a role,

Statistical Analyses: Quantitative data on FP attitudes to and experiences with self-care were described as proportions, and McNemar's test [19] was used to assess the significance of the difference between two correlated proportions (based on the same sample). Two-sided paired T-test and McNemar's test were performed for continuous and binary outcomes respectively to assess the significance of changes in FP attitudes from pre-to post- participation. All calculations were performed with SAS software version 9.3.

Results

Family physicians' participation: Letters were mailed to 400 FPs to achieve our recruitment goal. 30% (119/400) of them were non-contactable by telephone and 43% (171/400) were ineligible after contact. Of the remaining 110, 63 (57%) met

eligibility criteria, consented to participate, and completed an initial oral inquiry by the RA. Four withdrew before further participation took place. Of the remaining 59 FPs, 51 (86%) completed the entry questionnaire. These respondents were predominantly male (57%), over age 50 (55%), in practice at least 20 years (65%), had previous participation in research studies (77%), and their patients were predominantly middle aged (68%) or older (42%). 63% (37/59) of FPs completed the end of study questionnaire, while 58% (34/59) completed both. For those completing both questionnaires, the mean time between completions was 359 days (range 171-473).

Family physicians' interest in self-care: We explored both FPs' initial and later interest in self-care. Specifically, of the 63 who responded to the RA enquiry about reasons for study enrollment, 43% (27/63) identified interest in aspects of self-care (e.g. appreciation for the concept, interest in tools, a new care option, functions of coaches). In the end of study questionnaire 57% (21/37) of respondents professed interest in providing self-care coaching in their practices if there was no one else to do it. Table I compares interest in self-care amongst those who both completed the initial oral enquiry and the end of study questionnaire. McNemar's test found no significant change in positive interest ($p=.796$) from study entry (22/37 = 59%) to termination (21/37 = 57%).

Family physicians' knowledge about self-care: Amongst the 51 FPs who completed the initial questionnaire, 42% and 14% indicated being moderately to very familiar with the use of self-care for management of chronic physical disease as opposed to depression, respectively (McNemar, $p=0.002$). A significant difference was also observed for self-care effectiveness: 72% felt it was moderately to very effective for chronic physical disease, compared to 51% for depression (McNemar, $p=0.013$).

Family physicians' use of self-care: Of those FPs responding to the initial questionnaire 80% (41/51) indicated they recommended self-care for at least one of the seven illnesses (depression and the six targeted physical diseases), while 67% (34/51) actively assisted patients in setting self-care goals for at least one of those conditions. Table 2 further summarizes the frequency of self-care recommendations and help in goal setting for specific illnesses. The mean number of illnesses for which self-care was recommended and for which assistance in goal setting occurred was 3.4 and 2.8 respectively. Diabetes was the illness associated with the greatest FP involvement in self-care: 69% for self-care recommendation and 63% for goal setting assistance.

Study impact on family physicians: Of the 37 FPs who completed the end of study survey, 4 (11%) had examined the tool-kit binder, and 3 (8%) had some discussion with their patients about the coaching experience. Further, Table 3 summarizes the findings for the 34 FPs who completed both the study entry and end of study questionnaires. The degree to which FPs promoted or assisted with self-care and goal setting did not change as a result of their involvement in the study. Specifically, using McNemar's tests for binary variable and paired t-test for continuous variable, no differences at $\alpha = 0.05$ were detected.

Discussions

There appears to be need for varied ways of providing primary care for those with depression. Self-care coaching by

Table 1: Comparison in interest in self-care on study entry and completion (n=37).

		Study completion: "Interest in being a self-care coach"		
		No	Yes	Total
Study entry: "Interest in topic of self-care"	No	8	7	15
	Yes	8	14	22
	Total	16	21	n=37

Table 2: Family practitioners utilization of self-care on study entry (n=51).

Conditions	Recommend Self-care Options to Patients?		Actively Assist Patients in Setting and Attaining Self-care Goals?	
	n	(%)	n	(%)
Asthma	28	(55)	25	(49)
COPD	25	(49)	18	(35)
Diabetes	35	(69)	32	(63)
Arthritis	16	(31)	12	(24)
Hypertension	28	(55)	25	(49)
Heart Disease	20	(39)	13	(26)
Depression	23	(45)	19	(37)
Any(≥1)	41	(80)	34	(67)
Any except diabetes	6	(12)	2	(4)
	n	mean (sd)	n	mean (sd)
Number of chronic diseases (0-7)	51	3.4 (2.5)	51	2.8 (2.6)

FPs has been suggested as one such strategy [8,9] yet self-care is a complex activity that often exceeds dealing with life style issues (e.g. nutrition, exercise) by addressing challenging issues such as social activation, sleep patterns, adherence to recommended treatments, self-esteem, and monitoring physical and emotional states in order to adapt self-care strategies to meet changing needs [7]. This paper explored the potential for FPs to assume roles as self-care coaches for their patients with depression.

The sample of FPs studied were those who, in the absence of compensation, helped recruit patients with depression and co-morbid physical illness into a feasibility study of lay-coach support for self-care of depression. These FPs perceived self-care for depression to be less efficacious than for physical illness, and irrespective of participation in the feasibility study promoted it less for the former than the latter. Within the feasibility study we generated a broad list of coach characteristics and work conditions seemingly important for successful coaching. However inferential analysis of these items as being present or absent for FPs puts into question the generalizability of FPs taking on roles as self-care coaches for depression.

Table 3: Comparison of self-care utilization by FPs before and after study (n=34).

Conditions	Recommend Self-care Options to Patients?				Actively Assist Patients in Setting and Attaining Self-care Goals?			
	Baseline		End of study		Baseline		End of study	
	n	(%)	n	(%)	n	(%)	n	(%)
Asthma	23	(68)	22	(65)	19	(56)	18	(53)
COPD	17	(50)	22	(65)	13	(38)	15	(44)
Diabetes	24	(71)	26	(77)	21	(62)	25	(74)
Arthritis	10	(29)	8	(24)	9	(27)	8	(24)
Hypertension	20	(59)	22	(65)	17	(50)	20	(59)
Heart Disease	14	(41)	8	(24)	11	(32)	9	(27)
Depression	16	(47)	17	(50)	14	(41)	17	(50)
Any(≥1)	28	(82)	29	(85)	23	(68)	26	(77)
Any except diabetes	4	(12)	3	(9)	2	(6)	1	(3)
	n	mean (sd)	n	mean (sd)	n	mean (sd)	n	mean (sd)
Number of chronic diseases (0-7)	34	3.6 (2.5)	34	3.7 (2.2)	34	3.1 (2.7)	34	3.3 (2.5)

Family physicians' participation: Of eligible, contactable FPs, 57% consented to participation, and 54% actually took part. The literature examining recruitment rates of FPs into research shows wide variability (2 to 81%), [20-23] suggesting that recruitment in the present study was favorable. The recruited sample of FPs was an experienced one on the basis of years in practice. Given the predominance of older adults in their practices, they were likely quite familiar with care of those with illness chronicity and multi-morbidity.

Family physicians' interest in self-care: The literature suggests that a major factor influencing FP participation in research projects is specific interest in the research topic [24]. One might surmise that of the almost 30% of FPs who received solicitation letters and were later not contactable by telephone, many had low interest in self-care of depression and/or coaching. By contrast, 43% of those who did consent to participate cited that they accepted because of specific interest in self-care and/or coaching. Despite this, such motivation may not have been sustained over the study duration and may help explain why there was no significant increase from study onset to termination in the FPs' estimates of the frequency of their recommendations for self-care of depression or their assistance with self-care goal setting. Those findings may also be attributable to the fact that only with rare exception did they optionally review the self-care tool-kit, or enquire of patients as to their experience with it.

The decrease by 24% in the rate of FP questionnaire completion from study onset to termination may have been the result of new competing time demands over the course of the study. Alternatively, it might be further evidence that FPs' interest in the project was not sustained. Such a drop-off occurred despite study attempts to maintain interest by RA telephone calls and visits, as well as newsletters with motivational themes. Finally, 43% (16/37) of end of study questionnaire respondents indicated no interest in being self-care coaches in their practices, even if no other individuals were available to do it. However, since there were 22/59 who did not respond to that questionnaire, it is likely that within that group there were additional FPs with low / little interest in being self-

care coaches. Hence the proportion of those not interested in being a coach could range from 43% to 64% (38/59).

Family physicians' knowledge and views about self-care: On study entry FPs felt the effectiveness of self-care for chronic physical illness was greater than when for depression. This perception appears translated into reported practice: FPs ranked only two conditions lower than depression for recommendation of self-care use, and just three lower than depression for helping set self-care goals. This may reflect a bias or discomfort handling depression, or perhaps a limited understanding of the breadth of depression self-care. The latter hypothesis may be supported by looking at diabetes, the condition for which self-care options and assistance with goal setting were most commonly reported in both the pre- and post-study questionnaires. Is this because FPs' understanding of self-care for diabetes is relatively simplistic, limited to lifestyle issues such as weight loss, exercise, and lower carbohydrate intake? A recent study of FPs approach to diabetic self-care in American rural and small community practices would seem to suggest so since FPs overseeing self-care of diabetes focused on measures such as glycosylated hemoglobin, to the neglect of patients' issues such as difficulty relating test results to how they actually felt, or to impact of diabetes on work or family relationships [25].

Characteristics and conditions necessary for successful coaching: There are likely contextual factors in doctor-patient encounters that might limit FPs' interest, ability, or degree of assistance with self-care [26]. Based on our supervision of the study lay coaches, we generated a list of coach characteristics and working conditions: specifically the process and content of coaching, including possible facilitating and inhibiting factors. Appendix 1 lists 28 potentially relevant contextual factors that we summarized under three headings (with some likely overlapping): personal qualities of coaches, relational issues, and functional issues. This collation underscores that self-care support not only requires understanding of illnesses or problems under care, but also ability to suggest self-care tools appropriate to the specific needs of unique patients. It further suggests that

coaching skills are required to identify patient learning styles, motivation, and issues related to compliance. Positive coaching attributes would seem to include interest in the activity, ability to be non-judgmental, empathy, nurturing, and capacity for promoting patient empowerment and decision-making. Further, coaches require flexible time schedules to accommodate those of patients, as well as ability to hold encounters to a reasonable time limit. When each factor in Appendix 1 was considered for the likelihood of being present (yes, maybe, no) when an FP was a coach, many factors were rated as maybe or absent. Such inferential analysis adds to the other concerns expressed in this paper about the many limitations to FPs serving as self-care coaches for depression,

Study Limitations: As an exploratory study there are a number of potential limitations. First, we were able to study how FPs report handling of self-care, but Project DIRECT-sc was not formally designed to explore whether FPs can effectively coach depression self-care activities. Second, while the FP sample was a random one, its relatively small size may be seen an additional limitation, even though the study does provide a sense of what potential may exist for FPs to coach depression self-care. Third, it is possible that FPs not interested in being involved in the research project would nonetheless have an interest in self-care and coaching of depression. Fourth, since the FP participants were predominantly male, over age 50, and in practice greater than 20 years, it is not clear if the findings would apply to other FP demographic groups. Finally, we used non-validated questionnaires.

Conclusions

Nurses, health educators, pharmacists, nutritionists, medical assistants, community health workers, trained lay coaches, guided e-health, and doctors have been suggested as possible supports for patient self-care. While FPs may be well-placed to coach patient depression self-care activities, our study findings suggest potential FP attitudinal, behavioral, and knowledge barriers to assuming a coaching role. At this time FPs should likely not be considered a consistent or reliable source for self-care coaches for patients with depressive symptoms, except on an individual doctor to patient basis. To increase participation in self-care coaching for depression, changes in FP training, practice styles, practice support, and remuneration may be required.

Ethical Approval

The study protocol and consent procedures were approved by the St. Mary's Hospital Research Ethics Committee.

Conflicts of Interest

None.

Authors' Contributions

Mark Yaffe was a member of the Project DIRECT-sc research team. He oversaw the recruitment of the family physicians and methods of liaising with them. He helped develop the questionnaires that family physicians completed on study entry and completion. He collated conditions and characteristics of coaches presumed to contribute to effective coaches, and did the first inferential analysis of their applicability to family

physicians. He was the main author on all drafts of this manuscript.

Martin Cole was a member of the Project DIRECT-sc research team and was responsible for the supervision of the lay coaches. He reviewed and suggested revisions to drafts of this manuscript.

Jane McCusker was the principle investigator on Project DIRECT-sc and oversaw its operations, methodology and study reports. She helped develop the questionnaires that family physicians completed on study entry and completion. She reviewed and contributed to drafts of this manuscript.

Tamara Sussman was a member of the Project DIRECT-sc research team. She reviewed and contributed to drafts of this manuscript.

Maida Sewitch was a member of the Project DIRECT-sc research team. She contributed to the protocol methodology and reviewed and contributed to drafts of this manuscript.

Deniz Sahin assisted with data collection coordination, assigned patients to self-care coaches, analyzed FP recruitment logs, and reviewed and contributed to drafts of this manuscript.

Manon de Raad was the coordinator of Project DIRECT-sc. She had day to day involvement with all facets of the study and helped interpretation of statistical findings based on her global understanding of the project.

Eric Belzile was the statistician for the project and helped in the choice of appropriate tests. He reviewed and critiqued later manuscript drafts, with particular emphasis on data interpretation.

Acknowledgement

Funded by a research grant (#16384) from the Quebec Health Research Fund (Fonds de la Recherche Québec – Santé)

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Submitted Oct 04, 2015

Accepted Nov 04, 2015

CHARACTERISTIC / CONDITION	LIKELIHOOD WITH FAMILY PHYSICIAN AS COACH	QUALIFYING ISSUES
<i>Personal Qualities</i>		
1) Interest in self-care	Maybe	
2) Interest in supporting work on a particular health condition	Maybe	
3) Has been screened for aptitude as self care coach	No	
4)Patience for repetition in explaining tools, enquiry into tools being used, problem –solving for usefulness of another tool	Maybe	Selected doctors: a function of commitment to process and /or the number of patients
5) Non-judgmental	Maybe	Trained to be so, but personality may override training
6) Empathetic	Maybe	Trained to be so, but personality may override training
7) Encouraging, nurturing	Maybe	Not consistent
8) Ability to be authoritative	Yes	
9) Ability to be attentive listener	Maybe	May be influenced by time issues or lack of challenge with repetitiveness
10) Comfort with acute crises	Yes	Trained; variable comfort; usually has access to back-up
<i>Relationship Issues</i>		
11)Pre-existing relationship	Yes	
12) Impact of past knowledge of patient	Maybe	May bias approach to coaching relationship

13) Credibility	Maybe	Depends on degree to which the doctor has trained to coach use of specific self-care tools; may be influenced by pre-existing doctor-patient relationship which has defined doctor's availability, dependability, consistency, communication style
14) Provides simultaneous care for other problems	Yes	
15) Risk of patient violating limits because of simultaneous care for other problems	Yes	
16) Ability to build and support a trusting relationship	Yes	Depends on personality and motivation of doctor
17) Gives all care based on a contract or defined endpoint	No	
18) Implications if self-care fails or patient is dissatisfied	Maybe	Possible negative impact on doctor-patient relationship
19) Confidentiality assured	Yes	
20) Patient disclosure	Maybe	An on-going doctor-patient relationship may be a barrier to patient openness on certain issues
<i>Functional Issues</i>		
21) Has time to be taught coaching techniques through discussion, role plays / simulations, audio tape review	Unlikely	
22) Has time to devote to coaching	Maybe	Limited to small volume of patients; not remunerated
23) Ability to set time limits to a pre-defined length per intervention	Maybe	Variable, likely based on previous relationship and interactions

24) Ability to avoid giving psychotherapy	Maybe	May be difficult because of overlapping commitments to patient
25) Has flexible schedule to accommodate patients' schedules	Unlikely	
26) Needs supervision	Yes	Low likelihood beyond initial training
27) Fear of a malpractice grievance	Yes	This may guide approach of doctor
28) Payment available for coaching self-care activities	Maybe	Doctors who are salaried or paid hourly rate could likely be compensated; doctors paid fee-for-service would need special billing code; doctors directly billing patients could likely do so for coaching

Appendix 1: Potential characteristics and conditions impacting on self-care coaching by family physicians