Part 1: Shared decision making in physical therapy: *eliciting the patient agenda*

Part 2: Implementation of a Physical Therapy Approach Coach2Move for Older Adults: Barriers and Facilitators

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"ONDERGETEKENDE

Mandy, Clara, Alberdina, Erika, Johanna, Toonen Dekkers

bevestigt hierbij dat de onderhavige verhandeling mag worden geraadpleegd en vrij mag worden gefotokopieerd. Bij het citeren moet steeds de titel en de auteur van de verhandeling worden vermeld."

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ABSTRACT

Background: There is ongoing study to the implementation of a cost-effective personalized approach to physical therapy (Coach2Move) in daily practices. Society is facing an enormous growth in the number of older adults with mobility problems related to activities of daily living. For transition from "care to illness to healthy behavior" we need professionals who empower patients to take responsibility for their own health.

Aim: To identify which barriers and facilitators physical therapists experienced during the implementation of the Coach2Move physical therapy for the management of community-dwelling older adults (>=70 years) with mobility problems and/or physically inactive lifestyles in a pragmatic, real-world setting.

Method: A qualitative study investigated the barriers and facilitators of the implementation of Coach2Move in sixteen various practices. Twelve random semi-structured interviews (30-90 minutes) were held with five physical therapists (PT) and seven physical therapists specialized in geriatrics (PTG). An interview protocol was developed. Each interview was audiotaped and transcribed verbatim. Data were analyzed using a structured thematic approach ATLAS.ti.

Results: The participating PTs and PTGs identified several barriers and facilitators regarding to the implementation of the Coach2Move program. Four themes emerged from these barriers and facilitators during data analysis. First, we found that the therapists in the trial struggled with applying the eligibility criteria. Especially people who had cognitive impairments or were less motivated were erroneously excluded. Second, the therapists positively experienced the Coach2Move training, despite the attendees had different levels of professional degrees. More emphasis could had been put on the eligibility criteria. Third, for a sustainable implementation of Coach2Move, all therapists deemed structural reimbursement of Coach2Move program by all health insurers as crucial and there has to be a continuous influx of new patients. Fourth and final, we found that the research context influenced the implementation of Coach2Move, both negatively as well as positively.

Conclusion and key findings: Barriers and facilitators were identified in this study such as reimbursement by health insurance companies and the use of one EPD to make Coach2Move user-friendly. Before implementing Coach2Move into the field those barriers and facilitators should be taken into account.

Keywords: physical therapy, older adults, implementation

INTRODUCTION

Shared decision making (SDM) can be defined as "*an approach where clinicians and patients share the best available evidence when faced with the task of making decisions, and where patients are supported to consider options, to achieve informed preferences*".[1] In the SDM process the health professional and patient exchange information (team talk), discuss treatment options (option talk) and decide together the optimal treatment (decision talk).[2]
Over the last decade, decision making has been shifting from healthcare professionals making decisions "for their" patients towards patients making decisions "with their" healthcare professionals. From the perspective of patient inclusion, SDM is considered a more ethical way of clinical practice.[3] The use of SDM and patients being involved in their own treatment plan leads to better patient-clinician communication. This increases patient satisfaction, treatment adherence and results in positive health outcomes.[4–8]

In this study, we aim to gain additional insight into the first step of the SDM process, the patient agenda, in daily physical therapy care; in specific patients with shoulder problems. Testing the application of the patient agenda in people with shoulder complaints makes sense because for shoulder complaints there is a large focus on biomedical reasoning.[9] A recent systematic review of qualitative research summarized the different components of shoulder problems. The authors found that shoulder problems consist of pain, physical function/activity limitations, participation restrictions, sleep disruption, cognitive dysfunction, emotional distress and other pathophysiological manifestations.[10] Therefore this is broader than just biomedical reasoning. There are signals of a mismatch were physical therapists and patients have a different opinion to which symptoms are relevant.[11] Perhaps physical therapists fail to identify the symptoms most relevant to the patient and put too much emphasis on their own reasoning strategies.[12] It is unclear to what extent all these symptoms are being discussed and whether the patient is given sufficient opportunity to provide an explanation.

Eliciting the patients' expectations, preferences and concerns, as mentioned before, the patient agenda, can ensure that physical therapists and patients come together when deciding which symptoms are relevant. However, the patient agenda is often neglected in general clinical practice. As a consequences, patients may feel unheard.[13] Additionally, it is important to elicit the patient agenda because this leads to a better execution of the other steps of SDM.[14] From studies among physicians seems that they evoke the patient agenda in just 60% of all cases.[14–17] However to date, it is unclear to what extent the patient agenda is elicited by physical therapist.[18] Dierckx *et al* examined the extent to which decisions are shared between patients and physical therapists during a care process.[19] However, this does not provide any insight into the consultation.

The primary objective of this study is to gain insight into the variation between physical therapists in eliciting the patient agenda of people with shoulder complaints (as part of 'team talk' of shared decision making process) during the first consultation.
To gain insight in the primary objective the following sub-questions were made:

- Do individuals with shoulder complaints have the opportunity to talk about their personal agenda during the intake? If so, how long (in seconds) can they speak about this?
- How long do individuals with shoulder complaints have the time to talk about their personal agenda without being interrupted? And if interrupted, what kind of interruptions do physical therapists use?

The secondary objective of this study is to assess to what extent physical therapists and patients match their communication regarding the experiences (including symptoms) of people with shoulder complaints. The following sub-questions will be answered:

- Which symptoms are addressed by patients with shoulder complaints?
- Which symptoms are physical therapists interested in during their communication with the patient?

METHODS

Study design and participants

This study utilized a cross-sectional design in which we analyzed audio recorded conversations of the first interaction between physical therapists and patients. This study was conducted in primary care physical therapy practices in the Netherlands. Initially, physical therapists who were part of the shoulder network and work in primary care in the Netherlands, were recruited by members of the research group (TH, SH and MT). An extension of regular physical therapists in primary care to the inclusion criteria was applied when inclusion turned out to be lagging. Subsequently participating physical therapists included people with shoulder complaints. Patients with shoulder problems that visited the physical therapist between January 2020 and April 2020 were recruited. Patients were eligible for participation if they were aged 18 years or older, had shoulder complaints, could communicate independently; and if they signed an informed consent. We have analyzed these data quantitatively and reported according to the Strengthening the Reporting of Observational Studies in Epidemiology statement.[20] The study was conducted according to the principles of the Declaration of Helsinki.[21]

In order to avoid differences, the research group independently scored ten random consultations and percentages of absolute agreement were calculated and scored by multiple researchers The reviewers evaluated and discussed their findings toward achieving calibration and to resolve disagreements. The disagreements were resolved by discussion with a third party (research team member).

Procedure

Prior to the consultation, the physical therapists filled in the questionnaire. The first conversation was then audio-recorded and send to the research group. The researchers assessed the quality and excluded incomplete conversations or recordings with poor sound quality.

Study outcomes and definitions

Characteristics of the physical therapist and patients

The physical therapists completed a questionnaire on demographic characteristics about themselves and their patients. These questionnaires included: year of birth, sex, years of clinical experience, and additional training/course for the physical therapist. For the patients: year of birth, sex, educational level, first appointment with physical therapist and first appointment shoulder complaints.

Characteristics of the patient agenda

The research team registered the duration of each conversation (continuous), the invitation to talk about the patient agenda (dichotomous) and the duration of the patient agenda (continuous). Invitation to talk is registered when the physical therapist makes a declarative statement on the patients' reason for the visit, draws attention / confirms a health problem,

makes an effort to elicit the patients' concerns, or makes an introductory question resulting in disclosure of the patient agenda, e.g., What can I do for you today? What is your main concern? Tell me what brings you in today?[16]
When a physical therapist elicited the patient agenda, the observer determined whether the physical therapist interrupted the patient agenda or not (dichotomous). If completed (uninterrupted), the length of the statement was recorded (continuous). The patient agenda was considered completed when the patient stopped talking, the patient asked a question to the physical therapist or the patient explicitly declined to offer further information. If interrupted, the time to interruption (TTI) was recorded (continuous) and the kind of interruption was noted (nominal). The coding of TTI is based on the work by Beckman and Marvel.[16] In cases a physical therapist did not elicited the patient agenda, we only used the intake to answer the secondary objective questions.

Characteristics of the symptoms
The symptoms were investigated by scoring the audio-recorded appointments based on Page *et al*. (nominal). [10] The seven themes of Page *et al* are: pain, physical function/activity limitations, participation restriction, sleep disruption, cognitive dysfunction, emotional distress, and other pathophysiological manifestations.[10] If a theme was elicited during the intake by the patient or physical therapist, the observer will note the elicited theme. The observers determined which symptoms were addressed during the intake by the physical therapists, which by the patients, and determined which symptoms were addressed the same between physical therapist and patient.

Statistical Analysis
Descriptive statistics were used to describe the participating patients and physical therapists. For continuous data, when normally distributed, means and standard deviations (sd) were presented. If the continuous data is non-normally distributed, the median and inter-quartile were presented. For categorical data exact numbers and percentages are presented.
The primary objective is to get insight into the variation between physical therapists in eliciting the patient agenda. This insight is gained by describing the consultations by the following variables, duration of the consultation, invitation of the patient agenda, time of talk by patient about the patient agenda, interruption by physical therapist, time to interruption (TTI), kind of interruption.
The second objective is to assess to what extent physical therapists and patients match their communication regarding the experiences (including symptoms) of people with shoulder complaints. In order to do this the various domains of shoulder problems will be described for patients and physical therapist separately. After analyzing each consult, patient and physical therapist scores will be compared for points of divergence or convergence on the domains of shoulder complaints discussed during the consultation.
The statistical software SPSS version 24 (SPSS Inc, Chicago, Illinois, USA) was used to analyze the data.[22]

RESULTS

The study population consisted of twelve physical therapists, five men and seven women. The therapists had two to 35 years of experience in practice. Seven physical therapists were specialized in geriatrics (PTGs). A complete overview of the participants' characteristics is presented in table 1.

Table 1: Therapist characteristics

PT/PTG	Gender	Years PT	Years PTG	Work
PTG1	Female	17	6	F/H
PTG2	Female	15	11	H
PTG3	Male	5	1	F
PTG4	Male	7	3	F
PTG5	Female	35	14	F/H
PTG6	Female	5	1	F
PTG7	Female	13	8	F/H
PT1	Male	15	N/A	H
PT2	Female	17	N/A	F
PT3	Male	16	N/A	F
PT4	Male	2	N/A	F/H
PT5	Female	5	N/A	F/H
Abbreviations: PTG, physical therapists specialized in geriatrics; PT, physical therapists with experience in geriatrics; N/A, not applicable; F, first line care; H, healthcare institution.				

Four main themes regarding implementation were identified during two consensus meetings by the research group. These themes came logically from the interview guide except for theme four. (1) Which patients do physical therapists deem eligible for the Coach2Move program? (2) What were physical therapists experiences' regarding to the Coach2Move training? (3) What is necessary to sustainably implement Coach2Move? (4) What is the influence of the research context on the implementation of Coach2Move?

1. Which patients do physical therapists deem eligible for the Coach2Move program?

Because of the broad inclusion criteria in the study protocol, a great number of older patients with mobility limitations could be included in the trail. Some therapists mentioned that it was unclear to them which patients were eligible in the Coach2Move program. PTs and PTGs mentioned that they included older adults who lived at home and were dependent on care, more often in the Coach2Move program than people who lived in a healthcare institution. Moreover, PTs and PTGs told that they included older adults with a clear request for help in this program more often than people without a clear request for help. This is because the PTs and PTGs believed that these patients are a better fit for the Coach2Move approach.

"The group of older adults who live longer at home with limited care fits better in the Coach2Move program than older adults who live in a healthcare institution." PTG1

"For example, we also could have included patients who suffer from a severe aphasia. I think it was easier to recruit patients when the inclusion criteria were more clear from the beginning." PTG1

In addition to the intended exclusion criteria, PTGs excluded other patients based on their own experiences and beliefs. Patients were excluded because of health problems like CVA, dementia, Alzheimer, cognitive impairments or patients who received outpatient care. The PTGs explained that they did not want to overload these patients because they were already overburdened by healthcare providers. Patients were also excluded if they were less motivated. The reason which PTGs gave, was that these people were hard to motivate but in theory they suited well to the Coach2Move program. PTs said that they just followed the flowchart which all the therapists received in the beginning by including patients. PTs did not excluded patients based on their experiences and beliefs like the PTGs did.

"I have excluded one patient with lewy body dementia because the Coach2Move program would be too overloading." PTG2

2. What were physical therapists experiences' regarding to the Coach2Move training?

All the PTs and PTGs experienced the training of Coach2Move as useful for improving their skills as Coach2Move physical therapist and the therapists felt confident to apply the Coach2Move strategy in their daily physical therapy practice. Words the therapists used to describe the training were 'nice, enthusiastic, valuable contribution, and direct applicable in practice.'

"The setup of the training was very good. As a person you are trained well to become a Coach2mover." PT1

PTs and PTGs were excited about the motivational interviewing day of the training and in particular shared decision making and goal setting part. The PTGs mentioned motivational interviewing was also part of their education in their specialization, but never got the chance to carry it out in such a practical way. Therefore, they did appreciate the training of motivational interviewing. The regular PTs did not have any experience in motivational interviewing and thought this should be offered more extensively. Despite the different levels in motivational interviewing experience both PTs and PTGs appreciated the training together because they could benefit from each other putting motivational interviewing in daily practice and therefore promoting the implementation.

"Motivational interviewing was not new to me but I had never practiced or applied it in practice." PTG4

The PTs and PTGs preferred face to face training to online training. The training was nearby for the therapists which promoted the face to face approach. The participants in the study experienced getting together and having interaction positively and they believe it promoted the implementation. Opinions differed on the duration of the training. Some of the therapists mentioned that the training could be shorter, with less examples. Which makes the training more specific with more time for elaboration. In contrast, others asked for more practical examples. Finally, the training was scheduled in multiple days and not everyone was able to be present at all trainings days. The therapists regretted it and it caused different ambiguities, like for goal setting of Coach2Move or including patients.

> *"I would make the schedule more fixed. I would ask for feedback on the schedule weeks before training. After that it is more clear what is expected from you and which criteria are being applied." PT2*

PTs and PTGs both appreciated the online assessment prior to the training. They needed to make two video cases and assess the quality of two conversations from other therapist and their patient. Assessing each other's video cases and discuss them with peers in small groups, was very useful and educative. It helped them to see what their pitfalls were. The peer assessments were helpful to implement motivational interviewing during the Coach2Move program in practice through enlightening practical feedback. Whether the peer assessment moment was useful depended on the participating PTs and PTGs in the group. When the group had an open attitude towards giving feedback, it enhanced the level of given feedback. Some therapists had struggled making a video because of a lack of patients. Another burden was that some of the therapists did not take their responsibilities during the meetings and did not make a video. Overall, the peer assessments meeting required some time investment but was considered well worth it.

> *"It was valuable to see each other's work. I liked the part of making a video were we had to give feedback. You can learn a lot from this kind of traininig." PTG2*

> *"The motivational interviewing training was very valuable. It really helps therapists to discuss the patient's health problems and work in a different way to come to a solution." PTG4*

3. What is necessary to a sustainably implement Coach2Move?

To have a sustainable implementation for Coach2Move the PTs and PTGs suggested two critical points: 1) There has to be a continuous influx of new patients and 2) there has to be a reimbursement strategy from the health insurer. These two points are especially important for primary care therapists as they depend on their own revenue and do not have a fixed salary like therapists who work in a healthcare facility. Physical therapists felt it was uncertain whether

there would be a permanent compensation for Coach2Move by the health insurance companies.

> *"That should be the reimbursement from the health insurer which is essential. If they do not cooperate then it will be very difficult to implement." PTG1*

Recruiting patients through contacts with other health care providers (e.g. general practitioner) takes effort. However, knowledge on the Coach2Move program could promote the implementation. Promotion material was available to promote and inform about the program. However, a comment from one of the PTGs was that the material did not show the benefits for the patient and it did not attract patients to participate in this program.

PTs found administration in the electronic patient file time consuming. They would like to see some changes in the automatic system on Coach2Move which would make it unnecessary to first fill out questionnaires on paper and afterwards filling them into the system as well.

> *"What we encounter is that we cannot document the anamneses directly digitally. We have to document it on paper first before we can document it online." PTG4*

Before using the Coach2Move strategy all the therapists were coached in how to use the strategy. As mentioned before, the skill of motivational interviewing was considered very helpful by the PTs and PTGs. Because it was very helpful, motivational interviewing and therefore the peer assessments will promote the implementation of Coach2Move. Awarding accreditation points after the training will also promote the implementation of Coach2Move, because more PTs and PTGs want to do this training.

4. What is the influence of the research context on the implementation of Coach2Move?

The research context influenced the implementation of Coach2Move both negatively and positively.
An important point was the ownership of Coach2Move. The aim was to enthuse the Coach2Move therapists into being ambassadors who would share their ideas about the interpretation of the treatment. This was not always successful. Because of the research setting, therapists seemed to feel a primary dependency towards the researchers instead of their clients. For example, during the inclusion of patients the PTs and PTGs encountered obstacles. PTs felt dependent of general practitioners because they did not send much referrals. Therefore they had the feeling they missed potential patients to include.
In addition, therapists experienced that some patients did not want to participate. PTGs encountered patients agreeing to participating but withdrawing after first examination. According to the therapists patients withdraw because they deemed participation in this whole research as too much of a burden. Some of the patients did not want to participate because of little time or it was not obligatory to participate in this program.

When the measurements were conducted at home, PTGs noticed that some of the patients experienced turmoil. An explanation of withdrawal from patients, because an independent researcher will conduct all measurements. Therapists believed that patients were more likely to participate in the trial if the PT or PTG promoted the Coach2Move program face to face instead of by telephone. If there was no face to face contact or otherwise a connection between the patient and PT, it was harder to get a patient involved to participate. All of the PTs and PTGs agreed that the message to the patient should be brief. One of the PTGs stated that with a proper description of Coach2Move, almost every patient commits to participate. Another PTG mentioned after explaining essentials about cost-effectiveness, health insurer and added value for elderly patients, the patients are more inclined to participate.

> *"I usually start that we participate in this research and highlight the aim. In addition I tell them we would like to help improving physical therapy and ask patients to participate. If they said yes, I explained them the ins and outs when someone would participate, like the number of visits, the questionnaires and the part of monitoring. It is actually fine by everyone." PTG4*

The PTs mentioned that a lack of time hindered the implementation of Coach2Move. Examples were; it is not possible to process results of the first visit, like anamnesis, measurements, goals and agreements, in 30 minutes and it is also not possible to process the results on the same day but more likely in that same week. Some of the PTs felt some pressure to combine their specialism with the Coach2Move program. They also felt pressure when they had to plan the lengthy intake in their already busy schedule.

Therapists received two training days and three peer assessment meetings. For one therapist who missed the first day, it was uncertain if he could participate in the study as a Coach2Move therapist, since it was not clear to him what was expected from him in this role. The PTs and PTGs experienced an e-mail, send by the researcher group every month, as a pleasant reminder because they can, as they respond, quickly revert to old patterns. Because of this e-mail the research context helped the therapists to bind themselves to this program.

DISCUSSION

Summary of main findings

This study aimed to identify barriers and facilitators for implementing the Coach2Move program. We identified four themes related to the implementation of Coach2Move. First, we found that the therapists in the trial struggled with applying the eligibility criteria. Especially people who had cognitive impairments or were less motivated were erroneously excluded. The therapists believed that older adults who lived at home and were dependent on care with a clear request for help were a better fit for the Coach2Move program.

Second, the therapists positively experienced the Coach2Move training, even though the attendees had different levels of professional degrees. Especially, they appreciated the motivational interviewing and online assessment. Third, for a sustainable implementation of

Coach2Move, all therapists deemed structural reimbursement of the Coach2Move program by all health insurers as crucial and there has to be a continuous influx of new patients. Fourth and final, we found that the research context influenced the implementation of Coach2Move, both negatively as well as positively. An important item was ownership of Coach2Move. Because of the research setting, therapists appeared to feel a primary dependency towards the researchers, rather than towards their clients. At the same time, the research context did help the therapists commit to the program.

Compare/contrast findings with the literature on the subject

Previous research into the Coach2Move program also showed positive experiences from PTGs with the Coach2Move training.[23] Especially the extended intake allowing motivational interviewing and shared goal setting were considered valuable. The PTs and PTGs were satisfied about the training in motivational interviewing. It helped them to set up treatment goals and change in patients' behavior by using shared decision making. This is in line with previous studies indicating that when the professional is trained in motivating the patient, self-management is achieved sooner.[24] Facilitators in a research of van der Sant. *et al* were 1) frequent coaching by the researcher, and 2) therapists were open minded to change,[23] similar as to what we found. Barriers in both their and our study were 1) the fear of losing income, 2) the use of two EPD systems, and 3) scheduling an extended intake.[23]

Interestingly, we found that the research context played a substantial role in the (lack of) success of implementing Coach2Move. After all, the research context is found to be a big barrier for implementation in this research. The influence was similar identified in other studies.[25,26] Therefore it should be a recommendation for future research to investigate the influence of the research context during implementation. As a researcher it should be noted that implementation in a research context might not yield representative findings as implementation in the field.

Strengths & limitations of study

A strength of this study is the qualitative research design which is appropriate to describe the different in depth and detailed experiences of the PTs and PTGs and therefore provides adequate insight into the barriers and facilitators of the implementation of Coach2Move. Another strength was that the research group used member checks to exactly understand what the therapist meant. Furthermore, the interview was based on an interview guide. Responses in interviews tend to be socially desirable. We tried to avoid social accepted answers and used an external interviewer, unknown for the participants so they could speak out freely.

A limitation of this study was the uncertainty of reaching generalizability. The research group wants to verify if all barriers and facilitators are addressed by making a questionnaire based on the outcomes of these interviews and send them to all included therapists to check whether this sample relies on coincidence. When there are no new findings then it is possible to say is generalizability reached.

Another possible limitation was that the results of the therapists are mixed up and not stratified analyzed for the PTs and PTGs separately. The research group was wondering if they could train both PTs and PTGs good enough to become a Coach2Move therapist. PTGs think they are more specialized in older adults and have more experience and tools to become a Coach2Move therapist. On the other hand, PTs think it is not necessary to be a PTG to become a better Coach2Move therapist. However, as there are no separated results, we have to keep in mind that there might be some bias.

Future research

The results from this research will be translated into a questionnaire. This questionnaire will be sent to all the participating therapists so they can check whether they agree to what has been said in the interviews or if they may have some new barriers or facilitators. After analyzing the questionnaires, the barriers and facilitators will be discussed in a meeting with the KNGF, health insurers and the research group. When all parties come to an agreement, Coach2Move can be implemented into the field.

Implications for clinical practice

The knowledge gathered in this study can be used to develop a successful strategy for implementing physical activity programs into the field and improve the quality of the physical therapy treatment for older adults.

The Coach2Move approach can lead to a change in the physical therapy treatment of older adults. As the society is facing an enormous growth in the number of older adults with mobility problems it is necessary to make the patients take their own responsibility for their health.

Previous studies of the Coach2Move approach showed many beneficial effects but advised further research into implementation which is currently carried out. This research has provided new insights to what is going well and what is experienced positively, but more importantly, it has come clear what can and should be improved to the Coach2Move program. Ultimately, this research will contribute to the implementation of Coach2Move in the Netherlands in a broad sense, which will hopefully allow a lot of older adults to be treated in a more timely, efficient and cost effective manner.

CONCLUSION

The most important barriers into implementing the Coach2Move program are taking ownership and the use of two EPD's. Education in motivational interviewing and online assessment would both facilitate implementation. The knowledge gathered in this study can be used to develop a successful strategy for implementing physical activity programs and improve the quality of the physical therapy treatment for older adults.

REFERENCES

1. Elwyn G, Laitner S, Coulter A, Walker E, Watson P, Thomson R. Implementing shared decision making in the NHS. BMJ (Online). 2010.

2. Elwyn G, Durand MA, Song J, Aarts J, Barr PJ, Berger Z, et al. A three-talk model for shared decision making: Multistage consultation process. BMJ. 2017;

3. Charles C, Gafni A, Whelan T. Decision-making in the physician-patient encounter: Revisiting the shared treatment decision-making model. Soc Sci Med. 1999;

4. Fiks AG, Mayne S, Localio AR, Alessandrini EA, Guevara JP. Shared decision-making and health care expenditures among children with special health care needs. Pediatrics. 2012;

5. Lofland JH, Johnson PT, Ingham MP, Rosemas SC, White JC, Ellis L. Shared decision-making for biologic treatment of autoimmune disease: Influence on adherence, persistence, satisfaction, and health care costs. Patient Prefer Adherence. 2017;

6. Charles C, Gafni A, Whelan T. What do we mean by partnership in making decisions about treatment? BMJ. 1999;

7. Richards T, Montori VM, Godlee F, Lapsley P, Paul D. Let the patient revolution begin. BMJ (Online). 2013;

8. Angaran P, Dorian P, Tan MK, Kerr CR, Green MS, Gladstone DJ, et al. Patient preferences for shared decisions: A systematic review. Patient Educ Couns. 2016;

9. Hegedus EJ, Goode A, Campbell S, Morin A, Tamaddoni M, Moorman CT, et al. Physical examination tests of the shoulder: A systematic review with meta-analysis of individual tests. British Journal of Sports Medicine. 2008.

10. Page MJ, O'Connor DA, Malek M, Haas R, Beaton D, Huang H, et al. Patients' experience of shoulder disorders: a systematic review of qualitative studies for the OMERACT Shoulder Core Domain Set. Rheumatology. 2019;

11. Huber M, Van Vliet M, Giezenberg M, Winkens B, Heerkens Y, Dagnelie PC, et al. Towards a "patient-centred" operationalisation of the new dynamic concept of health: A mixed methods study. BMJ Open. 2016;

12. Nicholls DA. The end of physiotherapy. The End of Physiotherapy. 2017.

13. Kunneman M, Engelhardt EG, Ten Hove FL, Marijnen CAM, Portielje JEA, Smets EMA, et al. Deciding about (neo-)adjuvant rectal and breast cancer treatment: Missed opportunities for shared decision making. Acta Oncol (Madr). 2016;

14. Dyche L, Swiderski D. The effect of physician solicitation approaches on ability to identify patient concerns. J Gen Intern Med. 2005;

15. Singh Ospina N, Phillips KA, Rodriguez-Gutierrez R, Castaneda-Guarderas A, Gionfriddo MR, Branda ME, et al. Eliciting the Patient's Agenda- Secondary Analysis of

Recorded Clinical Encounters. J Gen Intern Med. 2019;

16. Beckman HB, Frankel RM. The effect of physician behavior on the collection of data. Ann Intern Med. 1984;

17. Marvel MK, Epstein RM, Flowers K, Beckman HB. Soliciting the patient's agenda: Have we improved? J Am Med Assoc. 1999;

18. Moore CL, Kaplan SL. A framework and resources for shared decision making: Opportunities for improved physical therapy outcomes. Phys Ther. 2018;

19. Dierckx K, Deveugele M, Roosen P, Devisch I. Implementation of Shared Decision Making in Physical Therapy: Observed Level of Involvement and Patient Preference. Phys Ther. 2013;

20. von Elm E, Altman DG, Egger M, Pocock SJ, Gøtzsche PC, Vandenbroucke JP. The strengthening the reporting of observational studies in epidemiology (STROBE) statement: Guidelines for reporting observational studies. Int J Surg. 2014;

21. WMA General Assembly. World Medical Asssociation Declaration of Helsinki: Ethical Principles for Medical Research Involving Human Subjects (as amended by the 59th WMA General Assembly, Seoul, October 2008). World Medical Association. 2008.

22. IBM. IBM SPSS Advanced Statistics 24. Ibm. 2016;

23. van de Sant AJW, de Vries NM, Hoogeboom TJ, Nijhuis-van der Sanden MWG. Implementation of a Personalized, Cost-Effective Physical Therapy Approach (Coach2Move) for Older Adults: Barriers and Facilitators. J Geriatr Phys Ther. 2019;

24. Rochfort A, Beirne S, Doran G, Patton P, Gensichen J, Kunnamo I, et al. Does patient self-management education of primary care professionals improve patient outcomes: A systematic review. BMC Fam Pract. 2018;

25. Swinkels RAHM, Van Peppen RPS, Wittink H, Custers JWH, Beurskens AJHM. Current use and barriers and facilitators for implementation of standardised measures in physical therapy in the Netherlands. BMC Musculoskelet Disord. 2011;

26. van Bodegom-Vos L, Verhoef J, Dickmann M, Kleijn M, van Vliet I, Hurkmans E, et al. A Qualitative Study of Barriers to the Implementation of a Rheumatoid Arthritis Guideline Among Generalist and Specialist Physical Therapists. Phys Ther. 2012;

APPENDIX

Approach of Coach2Move

In more detail, Coach2Move is a coaching strategy for physical therapists to elicit physical activity in elderly patients who visit their physical therapist for mobility problems. Key elements of Coach2Move strategy are: 1) exploring the needs and question for help and the barriers and facilitators (physical, social, and environmental) in relation to physical activity by using motivational interviewing techniques in an extensive intake; 2) setting priorities in diagnostic assessment of physical impairments as hypothesized based on the patient story, muscle force, fitness, fear, balance; 3) setting priorities in physical therapy treatment by using an algorithm that emphasizes clinical reasoning; 4) shared decision-making on meaningful treatment goals focused on abrogating barriers exercises, and increasing physical activity; 5) coaching on self-management and self-efficacy to increase long-term results; 6) focus on meaningful activities at home with help from family, friends, and/or professionals; and 7) stratified intervention by using three patient-tailored intervention profiles with a pre-defined number of intervention sessions.

Contrast with usual care physical therapy: using an extensive intake based on a decision algorithm (clinical reasoning), using motivational interviewing, setting meaningful goals on increasing (adherence for) physical activity, enhancing self-efficacy and self-management, giving feedback on progress, using personal and environmental factors, using intervention profiles with a predefined number of consults (based on expected recovery), and intervention given by a PT with additional education in geriatrics and Coach2Move.

Initially, all 16 practices will provide their usual PT care. No instructions will be given on treatment content, frequency and/or duration of the treatment episode. At some point in time (selected at random) Coach2Move is introduced through a two day education program, focus groups at the practice site and three peer assessment meetings. Moreover, an electronic medical record (EPD) will be provided to support the clinical reasoning and patient involvement and monitoring process and to stimulate communication with the local care network if appropriate. Additionally, the relevant stakeholders within this network will be provided with information on the Coach2Move approach and relevant referral criteria.

Methods

Study design

To assess the cost-effectiveness of Coach2Move compared to usual physical therapy care, we will use a stepped wedge cluster randomized trial design. A stepped wedge study has several advantages over RCTs: it evaluates regular care in real-life setting and minimizes nonparticipation. In our study, Coach2Move is rolled-out sequentially to 4 groups; each comprising 3 physical therapy practices. The time points at which the different practices receive Coach2Move are determined at random. By the end of the trial, all practices will have

implemented Coach2Move. In this stepped wedge study, we have set our measurement periods at time intervals of three months, resulting in a total inclusion duration of 18 months and a follow-up of 12 months (thus clinical study duration 30 months in total; leaving 9 months for preparations, and 9 months for analysis and write-up). Per group (3 practices) two months are planned for implementation of Coach2Move and an additional one month is incorporated to serve as a wash-out period between the control and implementation phase (thus resulting in I5 months of data in all practices). For patient included during these 15 months, we will collect data at baseline, directly after the intervention and 6 and 12 months after the intervention. All data will be collected by a research assistant. Data sampled at baseline which is relevant for clinical decision making will be communicated to the (G)PT, to avoid load on the patient. A mixed methods process evaluation is designed to investigate the processes through which the Coach2Move intervention operates on outcomes and how the implementation of the program is achieved in the context of potential organizational and other differences between regions and practices. Quantitative data will be collected and qualitative analyses (open interviews, focus groups and surveys) will be held with the participating PTs, relevant stakeholders and patients. Hindering and facilitating factors found during analysis will be used to fine-tune the implementation of the intervention strategy.
Objective: The aim of this study is to investigate the (cost)effectiveness of the implementation of Coach2Move physical therapy for the management of community-dwelling older adults (>=70 years) with mobility problems and/or physically inactive lifestyles in a pragmatic, real-world setting. By use of a process evaluation, we also aim to investigate the processes through which the Coach2Move intervention operates on outcomes and how the implementation of the program is achieved in the context of potential organizational and other differences between regions and practices.

Study population

Group of patients

In 16 physical therapy practices, therapists data was collected from 360 community-dwelling older adults (>=70 years) who visit the practice due to mobility problems related to activities of daily living. Exclusion: patients in a palliative phase and/or not able to walk. Patients with diminished communication (Dutch language problems, dementia) will additional be included for a separate analysis of the primary outcome measure.

Group of therapists

In order to form a good picture of how the implementation of Coach2Move in the various 16 practices went, 12 random semi-structured interviews (30-90 minutes) were held with physical therapists who participated in the research. Having supplied written information on the aim of the study, PTs and PTGs were invited by the researcher by telephone to participate. Informed consent was signed prior to the interview. An interview protocol was developed by the research group. Each interview was audiotaped and transcribed verbatim. Member checking was used to review the interview transcript for errors and misinterpretations.

Data analyses

interviews and focus group discussions will be done verbatim (every word captured exactly), each final anonymized transcript will be added to the analysis. A structured thematic approach will be used to analyze the qualitative data. The analysis will consist of five steps: 1) Familiarization and initial coding line by line by two researchers, 2) Developing a consolidated codebook, 3) Coding and indexing all transcripts against the consolidated codebook, and discussion in the research group to focus on key findings for each study objective, 4) Charting overall findings and look at any differences in patients, practices and context in dialogue with the project group and patient panel, 5) Synthesis and drawing conclusions.