



Justification

# KNGF Guideline on Self-Management

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All sections of the guideline, including the summary, are available at [kngf.nl/kennisplatform](https://kngf.nl/kennisplatform).



**The KNGF Guideline on Self-Management** is a publication of the Royal Dutch Society for Physical Therapy (Koninklijk Nederlands Genootschap voor Fysiotherapie – KNGF) and the Association of Cesar and Mensendieck Exercise Therapists (Vereniging van Oefentherapeuten Cesar en Mensendieck – VvOCM).

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# Table of contents

<b>A General information</b>		
Note A.1	Introduction	4
Note A.2	Background of self-management	5
Note A.3	Organisation of healthcare	6
<b>B Diagnostic process</b>		
Note B.1	Facilitating and inhibiting factors	7
<b>C Therapeutic process</b>		
Note C.1	Self-management support	9

**Note A.1 Introduction**

This guideline was developed in accordance with the 2019 KNGF Guideline Methodology (KNGF 2019). During the preparation phase, an invitational conference took place with various stakeholders and a focus group with physical therapists and exercise therapist, during which the barriers regarding self-management support were identified. A guideline panel and a review panel were set up containing a representation from the relevant stakeholders.

The barriers were subsequently presented to the members of the guideline panel and review panel during the first guideline panel meeting or review panel meeting, respectively. These barriers were then prioritised and converted into clinical questions as described in this guideline.

During the development phase, two guideline panel meetings took place in order to discuss the considerations and formulate recommendations. The review panel also provided feedback on the draft modules. During the review phase, the draft guideline – in which all modules were combined – was sent to physical therapists and exercise therapists in the professional field for their input, as well as to all stakeholders who contributed to the development of the guideline or indicated prior to the project that they wanted to be involved in the review phase. The feedback was then discussed by the guideline panel and review panel and was incorporated, when possible. After being adopted by the guideline panel, the guideline was presented to all involved stakeholders for authorisation.

After publication of the guideline, various implementation products were produced, including:

- patient information;
- training;
- e-learning module;
- article in journals.

Implementation activities are aimed in particular at the following three core topics:

- 1. facilitating and inhibiting factors regarding self-management;
- 2. use of the 5A model;
- 3. use of specific strategies for self-management support, specifically:
  - Motivational interviewing (MI)
  - Problem Solving Therapy (PST)
  - Acceptance and Commitment Therapy (ACT)
  - Solution-Focused Brief Therapy (SFBT)

**Patient perspective**

The patient perspective is ensured in the preparation phase, development phase and review phase. The Dutch Patient Federation provided input regarding the barriers during the preparation phase, articulated the considerations from the patient perspective during the development phase and commented on the draft guideline during the review phase. Pharos was also involved in the process in order to specifically ensure the perspective of patients with limited health literacy.

### References

- AQUA-Leidraad. Versie 1 januari 2021 (2021). Available at <https://www.zorginzicht.nl/binaries/content/assets/zorginzicht/ontwikkeltools-ontwikkelen/aqua-leidraad.pdf>.
- GRADE Working Group. GRADE: an emerging consensus on rating quality of evidence and strength of recommendations. *BMJ*. 2008;336(7650):924-6.
- Koninklijk Nederlands Genootschap voor Fysiotherapie (KNGF). KNGF-richtlijnenmethodiek: ontwikkeling en implementatie van KNGF-richtlijnen, versie 2. Amersfoort: KNGF; 2019.
- Next Steps Consortium. AGREE II: advancing guideline development, reporting and evaluation in health care. *CMAJ*. 2010 Dec 14;182(18):E839-42.
- VUMC/Ecorys. Een kwaliteitsstandaard fysio en oefentherapie: a roadmap voor een gestroomlijnde aanpak. Amsterdam: VUMC/Ecorys; 2018.
- Zorginstituut Nederland. Systeemadvies fysio- en oefentherapie. Een nieuwe balans tussen de toegang tot en de betaalbaarheid van goede zorg. Diemen: ZIN; 2016. Available at <https://www.zorginstituutnederland.nl/publicaties/adviezen/2016/12/20/systeemadvies-fysiotherapie-en-oefentherapie>. Accessed 8 September 2021.

### Note A.2 Background of self-management

In consultation with the guideline panel, it was decided not to conduct a systematic search for this clinical question but rather to collect the information in a non-systematic manner. The text, including the definition of self-management, was compiled based on the sources listed below.

### References

- Adams K, Greiner AC, Corrigan JM (Red.). Institute of Medicine (US) Committee on the Crossing the Quality Chasm: next steps toward a new health care system. The 1st Annual Crossing the Quality Chasm Summit: a focus on communities. Washington (DC): National Academies Press (US); 2004.
- Barlow J, Wright C, Sheasby J, Turner A, Hainsworth J. Self-management approaches for people with chronic conditions: a review. *Patient Educ Couns*. 2002 Oct-Nov;48(2):177-87.
- Centraal Begeleidings Orgaan (CBO). Coördinatieplatform Zorgstandaarden en het Kwaliteitsinstituut. Ministerie van Volksgezondheid, Welzijn en Sport. Zorgmodule Zelfmanagement 1.0. Het ondersteunen van een eigen regie bij mensen met één of meerdere chronische ziekten. Den Haag: Ministerie van VWS; 2014. Available at <https://www.zorgvoorbeter.nl/zorgvoorbeter/media/documents/thema/persoonsgerichte-zorg/zorgmodule-zelfmanagement-1-0.pdf>.
- Engel GL. The need for a new medical model: a challenge for biomedicine. *Science*. 1977 Apr 8;196(4286):129-36.
- Grady PA, Gough LL. Self-management: a comprehensive approach to management of chronic conditions. *Am J Public Health*. 2014 Aug;104(8):e25-31.
- Holman H, Lorig K. Patients as partners in managing chronic disease. Partnership is a prerequisite for effective and efficient health care. *BMJ*. 2000 Feb 26;320(7234):526-7.
- Koninklijk Nederlands Genootschap voor Fysiotherapie (KNGF). Beroepsprofiel fysiotherapeut. Amersfoort: KNGF; 2021. Available at [https://www.kngf.nl/binaries/content/assets/kngf/onbeveiligd/vak-en-kwaliteit/beroepsprofiel/kngf\\_beroepsprofiel-fysiotherapeut\\_2021.pdf](https://www.kngf.nl/binaries/content/assets/kngf/onbeveiligd/vak-en-kwaliteit/beroepsprofiel/kngf_beroepsprofiel-fysiotherapeut_2021.pdf).
- Landelijk Actieprogramma Zelfmanagement (LAZ). Eindrapportage zelfmanagement en kanker anno 2010. Nederlandse Patiënten Consumenten Federatie (NPCF) / Kwaliteitsinstituut voor de Gezondheidszorg CBO. Utrecht: NPCF-CBO; 2010. Available at <http://docplayer.nl/13817436-Eindrapportage-zelfmanagement-en-kanker-anno-2010-december-2010-landelijk-actieprogramma-zelfmanagement-laz.html>. Accessed 8 September 2021.

- Nederlands Huisartsen Genootschap (NHG). Dossier persoonsgerichte zorg. Utrecht: NHG; 2020. Available at <https://www.nhg.org/actueel/dossiers/dossier-persoonsgerichte-zorg-o>. Accessed 8 September 2021.
- Rijken M, Jones M, Heijmans M, Dixon A. Supporting self-management. In: Nolte E, McKee M, redactie. Caring for people with chronic conditions: a health system perspective. Berkshire: Open University Press; 2008. Pag. 116–142.
- Trappenburg J, Jonkman N, Jaarsma T, van Os-Medendorp H, Kort H, de Wit N, Trappenburg J. Self-management: one size does not fit all. *Patient Educ Couns*. 2013;92:134–7.
- van Staa A. Verpleegkundige ondersteuning bij zelfmanagement en eigen regie. Houten: Bohn Stafleu van Loghum; 2018.
- Vereniging van Oefentherapeuten Cesar en Mensendieck (VvOCM). Beroepsprofiel oefentherapeut (2019). Utrecht: VvOCM; 2019. Available at <https://vvocm.nl/Portals/2/Documents/Kwaliteit/Kwaliteitsregistratie/Beroepsprofiel%20oefentherapeut.pdf?ver=2020-03-15-204730-810>.
- World Health Organisation (WHO). Health education in self-care: possibilities and limitations. Report of a scientific. Genève: WHO; 1983. Available at <https://apps.who.int/iris/handle/10665/70092>. Accessed 8 September 2021.

### Note A.3 Organisation of healthcare

In consultation with the guideline panel, it was decided not to conduct a systematic search for this clinical question but rather to collect the information in a non-systematic manner. The text was compiled based on the sources listed below.

#### References

- Dwarswaard J, van Hooft SM. Zelfmanagementondersteuning in de opleiding van verpleegkundigen. Ruimte voor regie. Rotterdam: Kenniscentrum zorginnovatie Hogeschool Rotterdam; 2013.
- Heijmans M, Zwikker H, van der Heide I, Rademakers J. Nivel Kennisvraag 2016: Zorg op maat. Hoe kunnen we de zorg beter laten aansluiten bij mensen met lage gezondheidsvaardigheden. Utrecht: Nivel; 2016.
- Koninklijk Nederlands Genootschap voor Fysiotherapie (KNGF). Beroepsprofiel Fysiotherapeut. Amersfoort: KNGF; 2021. Available at [https://www.kngf.nl/binaries/content/assets/kngf/onbeveiligd/vak-en-kwaliteit/beroepsprofiel/kngf\\_beroepsprofiel-fysiotherapeut\\_2021.pdf](https://www.kngf.nl/binaries/content/assets/kngf/onbeveiligd/vak-en-kwaliteit/beroepsprofiel/kngf_beroepsprofiel-fysiotherapeut_2021.pdf).
- Meppelink CS, Smit EG, Buurman BM, van Weert JC. Should we be afraid of simple messages? The effects of text difficulty and illustrations in people with low or high health literacy. *Health Commun*. 2015 Dec 2;30(12):1181–9.
- Murugesu L, Heijmans M, Franssen M, Rademakers J. Beter omgaan met beperkte gezondheidsvaardigheden in de curatieve zorg: kennis, methoden en tools. Nivel, Amsterdam UMC, 2018. Available at <https://www.nivel.nl/nl/publicatie/beter-omgaan-met-beperkte-gezondheidsvaardigheden-de-curatieve-zorg-kennis-methoden-en>. Accessed 8 September 2021.
- Nederlandse Diabetes Federatie. Competentieprofiel Zelfmanagementeducatie bij diabetes. Amersfoort: Nederlands Diabetes Federatie (NDF); 2014. Available at <http://www.zorgstandaarddiabetes.nl/wp-content/uploads/2014/08/2014-08-04-NDF-Competentieprofiel-Zelfmanagement-educatie-DEFINITIEF.pdf>.

Vereniging van Oefentherapeuten Cesar en Mensendieck VvOCM. Beroepsprofiel oefentherapeut (2019). Utrecht: VvOCM; 2019. Available at <https://vvocm.nl/Portals/2/Documents/Kwaliteit/Kwaliteitsregistratie/Beroepsprofiel%20oefentherapeut.pdf?ver=2020-03-15-204730-810>.  
 Vilans. Competenties voor zelfmanagement ondersteuning. Utrecht: Vilans; 2021. Available at <http://kennisbundel.vilans.nl/zelfmanagement-competenties.html>. Accessed 4 June 2021.

### Note B.1 Facilitating and inhibiting factors

#### Literature

##### Search and selection

To answer this clinical question, a systematic search was conducted on 22 December 2020 in PubMed, Embase, Web of Science, CINAHL and Cochrane for facilitating and inhibiting factors for self-management regarding movement-related functioning. See appendix B.1-1 for the search rationale for this clinical question.<sup>1</sup> Based on the selection criteria, a search was conducted for systematic reviews, which were included if they met the inclusion criteria. The selection criteria are included in the following table.

##### Selection criteria

<b>Type of studies</b>	Systematic reviews for all types of studies, published in English or Dutch until 22 December 2020.
<b>Type of patients</b>	People with impaired movement-related functioning.
<b>Type of intervention</b>	Not applicable
<b>Type of comparison</b>	Not applicable
<b>Type of outcome</b>	Facilitating and inhibiting factors with regard to self-management concerning movement-related functioning

This search produced 538 hits. Of these hits, 501 articles were excluded based on title and abstract. Of the remaining 37 articles, the entire text was assessed. Ultimately, six systematic reviews were included that met the inclusion criteria (Abaraogu 2018; Christensen 2016; Coll 2017; Devan 2018; Essery 2017; Lavallée 2019). See appendix B.1-2 for the flowchart of the literature selection.

##### Description, study quality of the included studies

The six included systematic reviews are summarised in appendix B.1-3. Quantitative, qualitative and mixed-method studies are included in the selected systematic reviews. The study populations were very heterogeneous and include patients with musculoskeletal, neurological and oncological conditions, among others.

<sup>1</sup> The appendix to the Justification is available online.



The results of the six included systematic reviews were descriptively incorporated based on a narrative synthesis. The evidentiary value regarding the facilitating and inhibiting factors was taken from systematic reviews, if this was evaluated in the review (appendix B.1–4).

The guideline included the facilitating and inhibiting factors stemming from the literature (appendix B.1–5).

#### **Determination of the most important factors**

The facilitating and inhibiting factors that were identified in the literature review were clustered into seven overarching factors:

- perception of the illness, condition or injury;
- perceptions about the therapy/exercise/self-management;
- motivation;
- behaviour related to physical activity;
- social support and guidance;
- environmental factors;
- factors specific to an illness or condition.

#### **Considerations**

These overarching factors were submitted to the members of the guideline panel for assessment, with a request to assess which factors they deem important, based on the literature, clinical expertise and patient preferences, for treating patients with problems with regard to movement-related functioning. They were also asked whether important factors were missing from the overview. Lastly, the members of the guideline panel also assessed the proposed clustering of the factors. The guideline panel concluded that the overarching factors 'coping' and 'health literacy' were missing from the overview that was compiled based on the literature.

Ultimately, the following facilitating and inhibiting factors were formulated which can be identified when taking the medical history and/or over the course of the treatment:

- perception of the illness, condition or injury;
- perceptions about the therapy;
- motivation;
- behaviour related to physical activity;
- social support and guidance;
- environmental factors;
- factors specific to an illness or condition;
- health literacy;
- coping.

The most important facilitating and inhibiting factors are listed in appendix B.1–6.

Asking 'moving questions' or using a measurement instrument can be of added value according to the guideline panel, depending on the individual patient and according to the therapist's evaluation. Other than the example questions given as a suggestion in note B, other questions can also be of added value. The guideline panel states that 'moving questions' should primarily serve



as input for a conversation between the therapist and patient about self-management. This also applies to the suggested measurement instruments.

The guideline panel states that self-management support can generally be considered for every patient.

A specific strategy is chosen for supporting self-management if there are one or more main factors that are negatively associated with recovery. The recommendations regarding general self-management support and the specific strategies to support self-management are described in C.1 'Self-management support'.

If the main factors that are negatively associated with recovery are so dominant that they cannot be influenced within the physical therapy or exercise therapy domain, or if the factors are so inhibiting that they severely hinder the therapy progress, then the advice is to refer the patient (back) to the GP. In these cases, there may be an indication for other types of assistance, such as support by a psychologist or a social worker.

### References

- Abaraogu U, Ezenwankwo E, Dall P, Tew G, Stuart W, Brittenden J, Seenan C. Barriers and enablers to walking in individuals with intermittent claudication: A systematic review to conceptualize a relevant and patient-centered program. *PLoS One*. 2018 Jul 26;13(7):e0201095.
- Christensen ME, Brincks J, Schnieber A, Soerensen D. The intention to exercise and the execution of exercise among persons with multiple sclerosis – a qualitative metasynthesis. *Disabil Rehabil*. 2016;38(11):1023–33.
- Coll CVN, Domingues MR, Gonçalves H, Bertoldi AD. Perceived barriers to leisure-time physical activity during pregnancy: A literature review of quantitative and qualitative evidence. *J Sci Med Sport*. 2017;20(1):17–25.
- Devan H, Hale L, Hempel D, Saïpe B, Perry MA. What works and does not work in a self-management intervention for people with chronic pain? *Phys Ther*. 2018;98(5):381–97.
- Essery R, Geraghty AW, Kirby S, Yardley L. Predictors of adherence to home-based physical therapies: a systematic review. *Disabil Rehabil*. 2017 Mar 13;39(6):519–34.
- Koninklijk Nederlands Genootschap voor Fysiotherapie (KNGF). Beroepsprofiel fysiotherapeut. Amersfoort: KNGF; 2021. Available at [https://www.kngf.nl/binaries/content/assets/kngf/onbeveiligd/vak-en-kwaliteit/beroepsprofiel/kngf\\_beroepsprofiel-fysiotherapeut\\_2021.pdf](https://www.kngf.nl/binaries/content/assets/kngf/onbeveiligd/vak-en-kwaliteit/beroepsprofiel/kngf_beroepsprofiel-fysiotherapeut_2021.pdf).
- Lavallée JF, Abidin S, Faulkner J, Husted M. Barriers and facilitators to participating in physical activity for adults with breast cancer receiving adjuvant treatment: A qualitative metasynthesis. *Psychooncology*. 2019;28(3):468–76.
- Vereniging van Oefentherapeuten Cesar en Mensendieck (VvOCM). Beroepsprofiel oefentherapeut (2019). Utrecht: VvOCM; 2019. Available at <https://vvocm.nl/Portals/2/Documents/Kwaliteit/Kwaliteitsregistratie/Beroepsprofiel%20oefentherapeut.pdf?ver=2020-03-15-204730-810>.

### Note C.1 Self-management support

#### Self-management support in general

In consultation with the guideline panel and the review panel, it was decided not to conduct a systematic search for this clinical question but rather to use the professional profiles of the physical therapist and exercise therapist (KNGF 2021; VvOCM 2019) as the basis and supplement these with literature that was collected in a non-systematic manner.

### Self-management in the presence of main factors that are negatively associated with recovery

In order to determine which specific strategy is suitable in the presence of main factors that are negatively associated with recovery, a literature review was conducted for four of the most frequently used self-management strategies which a therapist can use to support a patient's self-management. The following self-management strategies were selected:

- Motivational Interviewing (MI)
- Problem Solving Therapy (PST)
- Acceptance and Commitment Therapy (ACT)
- Solution-Focused Brief Therapy (SFBT)

### Search and selection

To answer the clinical question, a systematic review was carried out on the following scientific question: In people with impaired movement-related functioning (P), what is the effect of MI, PST, ACT and SFBT (I) compared to a control group (C) on physical functioning (O).

To answer this clinical question, a systematic search was conducted on 31 March 2021 in PubMed, Embase, Web of Science, CINAHL, Cochrane, SPORTDiscus and PsycINFO (see appendix C.1-1 for the search rationale).

First, systematic reviews were searched for, and if these were unavailable, randomised and controlled studies (RCTs) were searched for. The selection criteria for the search on literature about the effect of MI, PST, ACT and SFBT are listed in the table below.

#### Selection criteria

<b>Type of studies</b>	Systematic reviews for RCTs and (if no systematic reviews are available) RCTs, published in English or Dutch until 31 March 2021.
<b>Type of patients</b>	People with impaired movement-related functioning.
<b>Type of intervention</b>	<ul style="list-style-type: none"> <li>• Motivational interviewing (MI)</li> <li>• Problem Solving Therapy (PST)</li> <li>• Acceptance and Commitment Therapy (ACT)</li> <li>• Solution-Focused Brief Therapy (SFBT)</li> </ul>
<b>Type of comparison</b>	Control group (e.g. placebo or waitlist)
<b>Types of outcomes</b>	Short-term physical functioning (<6 months) and long-term physical functioning (>6 months)

A total of 51 systematic reviews were identified by the search strategy, after deduplication. Forty systematic reviews were excluded based on the title and abstract, after which 11 systematic reviews were further assessed based on the full text. Ultimately, seven systematic reviews were included (Alperstein 2016; Chilton 2012; Jiang 2018; Long 2019; Soderlund 2018; Solaski 2020; Spencer 2016) which fulfilled the selection criteria. Reasons for exclusion were: incorrect outcome measure, incorrect intervention, no systematic review and self-management interventions for psychosomatic conditions (anxiety disorders). See appendix C.1-2 for the flowchart of the literature selection. The characteristics of the included reviews are included in appendix C.1-3.

All seven included systematic reviews were focused on MI. Therefore, RCTs were additionally sought for the remaining strategies PST, ACT and SFBT (see appendix C.1-1). This search yielded 76 RCTs after deduplication. A total of 66 articles were excluded based on title and abstract. Of the remaining 10 articles, the entire text was assessed. Ultimately, no RCTs were identified that fulfilled the selection criteria. See the flowchart in appendix C.1-4 for the literature selection of the RCTs.

### Motivational Interviewing

#### Individual study quality

The design and execution of the included systematic reviews were assessed with the help of the AMSTAR (appendix C.1-5). The AMSTAR items that didn't score as well were: risk of publication bias, lack of an adequate method for assessing the risk of bias (RoB) of the included studies and the study selection and data extraction not being independently executed by two reviewers. In five of the seven systematic reviews, the RoB was assessed with the help of the following instruments: the Risk-of-Bias Tool of the Cochrane Collaboration (Jiang 2018; Long 2019), the Quality Rating Scale (Alperstein 2016), the Downs and Black checklist (Chilton 2012) and a Mixed Methods Appraisal Tool (Solaski 2019). The RoB was not assessed in two systematic reviews (Soderlund 2018; Spencer 2016). When assessing the RoB of individual studies, the impairments were primarily the consequence of partial reporting of outcomes, selection bias and the fact that blinding was not possible.

#### Outcomes of the literature review

Data pooling was not desirable due to the heterogeneity of the study populations. That's why a qualitative synthesis of the results was chosen, broken down according to the effects of MI on physical functioning in the short and the long term. See the following table for the assessment of the studies according to GRADE.

### GRADE evidence profile of the effect of MI on physical functioning

RCTs (n)	Quality assessment					Summary of results		Quality (GRADE)
	Study design and execution (RoB)	Inconsistency	Indirectness	Imprecision	Publication bias	Participants	Effect size	
<b>MI compared to the control group on physical functioning (short term)</b>								
13	2 levels (5 RCTs with high or unknown RoB and 1 review of very low quality)	1 level (variation in effects found)	none	cannot be assessed	none	1,679	variation in effects found: <ul style="list-style-type: none"> <li>• 4/13 studies report a significant effect</li> <li>• mostly no effect size reported</li> </ul>	very low




**MI compared to the control group on physical functioning (long term)**

19	2 levels (11 RCTs with high or unknown RoB and 2 reviews of very low quality)	1 level (variation in effects found)	none	cannot be assessed	none	5,448	variation in effects found: <ul style="list-style-type: none"> <li>• 1 meta-analysis reports no effect</li> <li>• 8/15 other studies report a significant effect</li> <li>• mostly no effect size reported</li> </ul>	very low
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MI-MI = principles of MI/MI in combination with another intervention; RCT = randomized controlled trial; RoB = risk of bias

**Short term: physical functioning**

Five of the seven included systematic reviews concerned the effect of MI on short-term physical functioning (follow-up period <6 months). Based on the AMSTAR tool, four out of the five systematic reviews were of reasonable quality (Alperstein 2016; Chilton 2012; Long 2019; Sokalski 2020) and one of very low quality (Soderlund 2018).

Alperstein (2016) included three RCTs (low back pain and rheumatoid arthritis,  $n = 359$ ) which met the review's inclusion criteria. All three studies had a low RoB. None of the three studies reported a significant effect of MI on the short-term physical functioning outcome measure. No data about the effect size were reported within the review.

Chilton (2012) included one RCT (low back pain) that fulfilled the inclusion criteria of the review question. However, this RCT was also included in Alperstein's review and was therefore not included again in the analysis.

Long (2019) included seven RCTs (COPD,  $n = 1075$ ) which fulfilled the review's inclusion criteria. Five of these studies had a low RoB and two RCTs had a high RoB. Two studies (both with a low RoB;  $n = 504$ ) reported a significant effect of MI on the short-term physical functioning outcome measure, four studies (two RCTs with a high RoB, two RCTs with a low RoB;  $n = 506$ ) reported no significant effect and one study (with a low RoB;  $n = 65$ ) reported a significant effect in favour of the control group. No data about the effect size were reported within the review.

Soderlund (2018) included two RCTs (type 2 diabetes,  $n = 153$ ) which met the review's inclusion criteria. The RoB of the RCTs was not assessed in this review. One study ( $n = 100$ ) reported a significant effect of MI on the short-term physical functioning outcome measure and one study ( $n = 53$ ) reported no significant effect. No data about the effect size were reported within the review.

Solaski (2020) included one RCT (chronic heart failure,  $n = 92$ ) that fulfilled the inclusion criteria of the review. This study had a high RoB and reported a significant effect of MI on the short-term physical functioning outcome measure. No data about the effect size were reported within the review.

**Conclusion** The found effects of MI on the short-term physical functioning outcome measure vary greatly. A positive effect of MI was found in four of the 13 RCTs (1 RCT with a high RoB, 2 RCTs with a low RoB, 1 RCT with an unknown RoB;  $n = 696$ ), no effect of MI was found in eight RCTs (2 RCTs with a high RoB, 5 RCT's with a low RoB, 1 RCT with an unknown RoB;  $n = 918$ ) and a negative effect of MI was found in one RCT ( $n = 65$ ). Effect sizes were not reported in the included reviews. The

evidentiary value (according to the GRADE method) is very low because it was lowered by three levels given the limitations in the study design and execution (2 levels) and inconsistency (1 level). The effect of MI on short-term physical functioning is uncertain due to this.

***Long term: physical functioning***

Six of the seven included systematic reviews concerned the effect of MI on long-term physical functioning (follow-up period of at least 6 months). Based on the AMSTAR tool, four out of the six systematic reviews were of moderate quality (Alperstein 2016; Chilton 2012; Jiang 2018; Sokalski 2019) and two of very low quality (Soderlund 2018; Spencer 2016).

Alperstein (2016) included five RCTs (low back pain and rheumatoid arthritis,  $n = 779$ ) which met the review's inclusion criteria. Four studies had a low RoB and one study had a high RoB. None of the five studies reported a significant effect of MI on the long-term physical functioning outcome measure (Hedges  $g = 0.124$ , 95% CI =  $-0.016$  to  $0.265$ ).

Chilton (2012) included one RCT (low back pain) that fulfilled the inclusion criteria of the review question. However, this RCT was also included in Alperstein's review and was therefore not included again in the analysis.

Jiang (2018) included one RCT (chronic heart failure,  $n = 108$ ) that fulfilled the review's inclusion criteria. This study had a high RoB and reported a significant and clinically relevant effect of MI on the long-term physical functioning outcome measure (6MWT: MD =  $54.5$  (95% CI =  $21.43$  to  $87.57$ )).

Long (2019) included four RCTs (COPD,  $n = 1,296$ ) that met the review's inclusion criteria. All four studies had a low RoB. Two studies ( $n = 761$ ) reported a significant effect of MI on the long-term physical functioning outcome measure and two studies ( $n = 535$ ) reported no significant effect. No data about the effect size were reported within the review.

Soderlund (2018) included seven RCTs (type 2 diabetes,  $n = 3,176$ ) which met the review's inclusion criteria. The RoB of these studies was not assessed. Three studies ( $n = 341$ ) reported a significant effect of MI on the long-term physical functioning outcome measure and four studies ( $n = 2,835$ ) reported no significant effect. No data about the effect size were reported within the review.

Spencer (2016) included two RCTs (cancer,  $n = 89$ ) which met the review's inclusion criteria. The RoB of these studies was not assessed. Both studies reported a significant, moderate effect of MI on the long-term physical functioning outcome measure (data about the effect size was not reported).

***Conclusion*** The found effects of MI on the long-term physical functioning outcome measure vary greatly. Within one systematic review, no effect was found by a meta-analysis based on five 5 RCTs (1 RCT with a high RoB, 4 RCTs with a low RoB;  $n = 779$ ), a positive effect of MI was found in eight of the 14 remaining RCTs (1 RCT with a high RoB, 2 RCTs with a low RoB, 5 RCTs with an unknown RoB;  $n = 1,299$ ) and no effect of MI was found in the other six RCTs (2 RCTs with a low RoB, 4 RCTs with an unknown RoB;  $n = 3370$ ). Effect sizes were often not reported in the included reviews. The evidentiary value is very low because it was lowered by three levels given the limitations in the study design and execution (2 levels) and inconsistency (1 level). The effect of MI on long-term physical functioning is uncertain due to this.

### Motivational Interviewing evidence to decision

- Desired effects: The found effects of MI on the short-term and long-term physical functioning outcome measure vary greatly. The actual effect of MI on physical functioning in both the short term and long term is uncertain due to this, also due to limitations in the study design and execution and because effect sizes were not consistently reported in the included studies.
- Undesirable effects: No undesirable effects of MI in the short term and long term were reported in the identified studies. Due to the type of strategy, it is also unlikely that undesirable effects will occur.
- Quality of desired effects: The quality of the evidence varies due to the differences in the quality of the included systematic reviews and the individual RCTs.
- Balance between desired and undesirable effects: Given that undesirable effects are unlikely, the desired effects of the strategy in all probability outweigh the undesirable effects.
- Value of desired effects: The effects of MI on the short-term and long-term physical functioning outcome measure vary greatly. Of the studies that report a positive effect on physical functioning, it is unclear whether the reported effect is clinically relevant. The value from the patient perspective is expected to be large, because MI gives the patient the opportunity to actively work on solving the problem in movement-related functioning himself.
- Variation in value of desired effects: The guideline panel's expectation is that most of the effects can be achieved if motivation is a strongly inhibiting factor for self-management. MI may be more effective when it is offered face to face than if it takes place primarily over the phone (Sokalski 2019).
- Required resources (costs): There are no additional costs associated with MI.
- Variation in required resources (costs): Not applicable.
- Cost-effectiveness: The cost-effectiveness of MI for use in physical therapy and exercise therapy is uncertain, as there are no known studies on this. However, MI does appear to be cost-effective in psychological fields (Cowell 2012; Ruger 2008).
- Acceptability: MI is acceptable if the strategy is applied to patients who can have the most benefit from this (see variation in value of desired effects) and when it is also possible to only apply aspects of MI during the therapy instead of all the described elements. More is not even necessary in many cases.
- Feasibility: MI is often applied in physical therapy and exercise therapy, and application of (aspects of) this strategy is hence considered feasible within the physical therapy and exercise therapy domain.

**Conclusion** The guideline panel decided on a conditional recommendation to apply (aspects of) MI for patients in whom motivation is a main factor that is negatively associated with recovery for self-management with respect to movement-related functioning. The MI evidence-to-decision form is included in appendix C.1–6.

### Problem Solving Therapy

For this strategy, no studies were found that fulfilled the selection criteria.

*Conclusion* Given that no literature was found about the effect of PST, the effect of the intervention is uncertain in both the short term and the long term.

### Problem Solving Therapy (PST) evidence to decision

- Desired effects: Due to the lack of studies, there is no proof of effectiveness of PST with respect to physical functioning. The effectiveness of PST for depression and/or anxiety is supported in the primary healthcare setting and within other healthcare disciplines (Zhang 2018).
- Undesirable effects: No literature found. However, due to the type of strategy, it is unlikely that undesirable effects will occur.
- Quality of desired effects: No literature found.
- Balance between desired and undesirable effects: Given that the desired effects are unknown, it cannot be concluded that the desired effects outweigh the undesirable effects. However, undesirable effects are not likely.
- Value of desired effects: There is expected to be value from the patient perspective, because PST gives the patient the opportunity to actively work on solving the problem in movement-related functioning himself. Additionally, there are indications that PST has a positive effect on absenteeism (Van der Hout 2003).
- Variation in value of desired effects: The guideline panel's expectation is that most of the effects can be achieved in patients who think they themselves have little influence on their impairments (low locus of control). Be cautious with applying PST in patients with serious problems, such as clinical depression or anxiety disorder.
- Required resources (costs): There are no additional costs associated with PST.
- Variation in required resources (costs): Not applicable.
- Cost-effectiveness: There are indications for the cost-effectiveness of PST regarding resumption of work (Van der Hout 2003).
- Acceptability: PST still isn't applied frequently within physical therapy and exercise therapy but does fit in the social domain. Additionally, it is possible to only apply certain aspects from PST during therapy instead of all of the described elements.
- Feasibility: Despite the fact that PST still isn't applied frequently within physical therapy and exercise therapy, it is deemed feasible to apply (aspects of) this strategy within the physical therapy and exercise therapy domain in patients with a low locus of control.

**Conclusion** The guideline panel decided on a conditional recommendation to apply (aspects of) PST for patients in whom a low locus of control is a main factor that is negatively associated with recovery for self-management with respect to movement-related functioning. The guideline panel decided on a conditional recommendation against the strategy in patients with serious psychosomatic problems, such as clinical depression or anxiety disorder. The PST evidence-to-decision form is included in appendix C.1-7.

### Acceptance and Commitment Therapy

For this strategy, no studies were found that fulfilled the selection criteria.

*Conclusion* Given the lack of literature, the effect of the ACT is uncertain in both the short term and the long term.



### Acceptance and Commitment Therapy (ACT) evidence to decision

- Desired effects: Due to the lack of studies, there is no proof of effectiveness of ACT on physical functioning. There are, however, indications for proof of effectiveness of ACT from other healthcare disciplines (Coto-Lesmes 2020).
- Undesirable effects: No literature found. However, due to the type of strategy, it is unlikely that undesirable effects will occur.
- Quality of desired effects: No literature found.
- Balance between desired and undesirable effects: Given that the desired effects are unknown, it cannot be concluded that the desired effects outweigh the undesirable effects. However, undesirable effects are not likely.
- Value of desired effects: There is expected to be value from the patient perspective, because ACT gives the patient the opportunity to actively work on solving the problem in movement-related functioning himself.
- Variation in value of desired effects: The guideline panel's expectation is that most of the effects can be achieved in the difficult/chronic patient group that has problems accepting their condition and the impairments stemming from it.
- Required resources (costs): There are no additional costs associated with ACT.
- Variation in required resources (costs): Not applicable.
- Cost-effectiveness: The cost-effectiveness of ACT for use in physical therapy and exercise therapy is uncertain, as there are no known studies on this.
- Acceptability: ACT still isn't applied frequently within physical therapy and exercise therapy but does fit in the domain. Additionally, it is also possible to only apply certain aspects from ACT during therapy instead of all of the described elements.
- Feasibility: Despite the fact that ACT still isn't applied frequently within physical therapy and exercise therapy, it is deemed feasible to apply (aspects of) this strategy within the physical therapy and exercise therapy domain in patients who experience problems with accepting their condition and the impairments stemming from it.

**Conclusion** The guideline panel decided on a conditional recommendation to apply (aspects of) ACT for patients with chronic conditions in whom not accepting the health problem is a main factor that is negatively associated with recovery for self-management with respect to movement-related functioning. The ACT evidence-to-decision form is included in appendix C.1-8.

### Solution-Focused Brief Therapy

For this strategy, no studies were found that fulfilled the selection criteria.

*Conclusion* Given the lack of literature, the effect of the SFBT is uncertain in both the short term and the long term.

### Solution-Focused Brief Therapy (SFBT) evidence to decision

- Desired effects: Due to the lack of studies, there is no proof of effectiveness of SFBT with respect to physical functioning. However, there are indications for the proof of effectiveness of SFBT within other healthcare disciplines (Gingerich 2013).





- Undesirable effects: No literature found. However, due to the type of strategy, it is unlikely that undesirable effects will occur.
- Quality of desired effects: No literature found.
- Balance between desired and undesirable effects: Given that the desired effects are unknown, it cannot be concluded that the desired effects outweigh the undesirable effects. However, undesirable effects are not likely.
- Value of desired effects: There is expected to be value from the patient perspective, because SFBT gives the patient the opportunity to actively work on solving the problem in movement-related functioning himself.
- Variation in value of desired effects: SFBT has potential for added value for all patients if inhibiting factors for self-management with respect to movement-related functioning play a role. The variation is small due to this.
- Required resources (costs): There are no additional costs associated with SFBT.
- Variation in required resources (costs): Not applicable.
- Cost-effectiveness: The cost-effectiveness of SFBT for use in physical therapy and exercise therapy is uncertain, as there are no known studies on this.
- Acceptability: SFBT can be applied very easily and quickly during or after treatment of patients with problems in movement-related functioning if inhibiting factors regarding self-management play a role. Additionally, it is also possible to only apply certain aspects from SFBT during therapy instead of all of the described elements.
- Feasibility: SFBT still isn't applied frequently within physical therapy and exercise therapy but does fit in the movement-related functioning domain. The method can also be applied in all patients. It is therefore deemed feasible to apply (aspects of) this strategy within the physical therapy and exercise therapy domain.

**Conclusion** The guideline panel decided on a conditional recommendation to apply (aspects of) SFBT if main factors that are negatively associated with recovery play a role in self-management with respect to movement-related functioning. The SFBT evidence-to-decision form is included in appendix C.1-9.

### References

- Alperstein D, Sharpe L. The efficacy of motivational interviewing in adults with chronic pain: a meta-analysis and systematic review. *J Pain*. 2016 Apr;17(4):393-403.
- Bakker JM, Bannink FP. Oplossingsgerichte therapie in de psychiatrische praktijk [Solution focused brief therapy in psychiatric practice]. *Tijdschr Psychiatr*. 2008;50(1):55-9.
- Bandura A, Cervone D. Self-evaluative and self-efficacy mechanisms governing the motivational effects of goal systems. *J Person Soc Psychol*. 1983; 45: 1017-28.
- Bartelink C. Wat werkt: Oplossingsgerichte therapie? Utrecht: NJi; 2013. Available at <https://www.nji.nl/sites/default/files/2021-06/Oplossingsgerichte-therapie-wat-werkt.pdf>.
- Beaudreau SA, Gould CE, Sakai E, Huh JWT. Problem-solving therapy. In: Pachana NA, redactie. *Encyclopedia of geropsychology*. Singapore: Springer; 2017.
- Bell AC, D'Zurilla TJ. Problem-solving therapy for depression: a meta-analysis. *Clin Psychol Rev*. 2009 Jun;29(4):348-53.
- Bodenheimer T, Hadley MA. Goal-setting for behavior change in primary care: An exploration and status report. *Patient Educ Couns*. 2009; 76(2):174-80.

- Centraal Begeleidings Orgaan. Coördinatieplatform Zorgstandaarden en het Kwaliteitsinstituut. Ministerie van Volksgezondheid, Welzijn en Sport. Zorgmodule Zelfmanagement 1.0. Het ondersteunen van een eigen regie bij mensen met één of meerdere chronische ziekten. Den Haag: Ministerie van VWS; 2014. Available at <https://www.zorgvoorbeter.nl/zorgvoorbeter/media/documents/thema/persoonsgerichte-zorg/zorgmodule-zelfmanagement-1-0.pdf>.
- Chilton R, Pires-Yfantouda R, Wylie M. A systematic review of motivational interviewing within musculoskeletal health. *Psychol Health Med*. 2012;17(4):392-407.
- Coto-Lesmes R, Fernández-Rodríguez C, González-Fernández S. Acceptance and commitment therapy in group format for anxiety and depression. A systematic review. *J Affect Disord*. 2020 Feb 15;263:107-120.
- Cowell AJ, Brown JM, Mills MJ, Bender RH, Wedehase BJ. Cost-effectiveness analysis of motivational interviewing with feedback to reduce drinking among a sample of college students. *J Stud Alcohol Drugs*. 2012 Mar;73(2):226-37.
- DiabeteszorgBeter. Voorlichtingsmethodieken motivational interviewing. 2007. Available at <https://www.nvkvv.be/file?file=492214>. Accessed 11 May 2021.
- Eskin M. Problem solving therapy in the clinical practice. Elsevier: New York; 2012.
- Gallant MP. The influence of social support on chronic illness self-management: a review and directions for research. *Health Educ Behav*. 2003;30(2):170-95.
- Geilen MJ, van Wilgen CP, Köke A, Engers AJ. Graded activity: een gedragsmatige behandelmethode voor paramedici. Houten: Bohn Stafleu van Loghum; 2006.
- Gingerich WJ, Peterson LT. Effectiveness of solution-focused brief therapy: a systematic qualitative review of controlled outcome studies. *Res Soc Work Pract*. 2013;23(3):266-83.
- Glasgow RE, Davis CL, Funnell MM, Beck A. Implementing practical interventions to support chronic illness self-management. *Jt Comm J Qual Saf*. 2003 Nov;29(11):563-74.
- Hodges NJ, Franks IM. Modelling coaching practice: the role of instruction and demonstration. *J Sports Sci*. 2002;20(10):793-811.
- Hutting N, Johnston V, Staal JB, Heerkens YF. Promoting the use of self-management strategies for people with persistent musculoskeletal disorders: the role of physical therapists. *J Orthop Sports Phys Ther*. 2019;49(4):212-5.
- Jiang Y, Shorey S, Seah B, Chan WX, Tam WWS, Wang W. The effectiveness of psychological interventions on self-care, psychological and health outcomes in patients with chronic heart failure—A systematic review and meta-analysis. *Int J Nurs Stud*. 2018 Feb;78:16-25.
- Koninklijk Nederlands Genootschap voor Fysiotherapie (KNGF). Beroepsprofiel Fysiotherapeut. Amersfoort: KNGF; 2021. Available at [https://www.kngf.nl/binaries/content/assets/kngf/onbeveiligd/vak-en-kwaliteit/beroepsprofiel/kngf\\_beroepsprofiel-fysiotherapeut\\_2021.pdf](https://www.kngf.nl/binaries/content/assets/kngf/onbeveiligd/vak-en-kwaliteit/beroepsprofiel/kngf_beroepsprofiel-fysiotherapeut_2021.pdf).
- Lenzen SA, Daniëls R, van Bokhoven M A, van der Weijden T, Beurskens A. Disentangling self-management goal setting and action planning: A scoping review. *PLoS One*. 2017;12(11):e0188822.
- Long H, Howells K, Peters S, Blakemore A. Does health coaching improve health-related quality of life and reduce hospital admissions in people with chronic obstructive pulmonary disease? A systematic review and meta-analysis. *Br J Health Psychol*. 2019 Sep;24(3):515-46.
- Lorig K. Action planning: a call to action. *J Am Board Fam Med*. 2006;19(3):324-5.
- Main CJ, George SZ. Psychologically informed practice for management of low back pain: future directions in practice and research. *Phys Ther*. 2011 May;91(5):820-4.
- McGowan PT. Self-management education and support in chronic disease management. *Prim Care*. 2012;39:307-25.

- Miller WR, Rollnick S. *Motivational interviewing: preparing people for change*. New York: Guilford Press; 2002.
- Prestwich A, Conner M, Hurling R, Ayres K, Morris B. An experimental test of control theory-based interventions for physical activity. *Br J Health Psychol*. 2016 Nov;21(4):812-26.
- Quick EK, Gizzo DP. The 'doing what works' group: A quantitative and qualitative analysis of solution-focused group therapy. *J Fam Psychother*. 2007 Sep 21;18(3):65-84.
- Ruger JP, Weinstein MC, Hammond SK, Kearney MH, Emmons KM. Cost-effectiveness of motivational interviewing for smoking cessation and relapse prevention among low-income pregnant women: a randomized controlled trial. *Value Health*. 2008 Mar-Apr;11(2):191-8.
- Schreurs KMG, Veehof MM. Acceptance and commitment therapy bij chronische pijn. In: van Wilgen CP, Calders P, Geraets JJXR, Nijs J, Veenhof C, van Wegen EEH, redactie. *Jaarboek fysiotherapie kinesitherapie*. Houten: Bohn Stafleu Van Loghum; 2013. p. 196-207.
- Soderlund PD. Effectiveness of motivational interviewing for improving physical activity self-management for adults with type 2 diabetes: A review. *Chronic Illn*. 2018 Mar;14(1):54-68.
- Sokalski T, Hayden KA, Raffin Bouchal S, Singh P, King-Shier K. motivational interviewing and self-care practices in adult patients with heart failure: a systematic review and narrative synthesis. *J Cardiovasc Nurs*. 2020 Mar/Apr;35(2):107-15.
- Spencer JC, Wheeler SB. A systematic review of motivational interviewing interventions in cancer patients and survivors. *Patient Educ Couns*. 2016 Jul;99(7):1099-105.
- Tobin DL, Reynolds RVC, Holroyd KA, Creer TL. Self-management and social learning theory. In: Holroyd KA, Creer TL, redactie. *Self-management of chronic disease*. New York: Academic Press; 1986. pp. 29-55.
- Trappenburg J, Jonkman N, Jaarsma T, van Os-Medendorp H, Kort H, de Wit N, Hoes A, Schuurmans MJ. Zelfmanagement bij chronische ziekten. *Huisarts Wet*. 2014 Mar 1;57(3):120-4.
- Treasure J. Motivational interviewing. *Adv Psychiatr Treat*. 2004 Sep;10(5):331-7.
- van Achterberg T, Huisman-de Waal GG, Ketelaar NA, Oostendorp RA, Jacobs JE, Wollersheim HC. How to promote healthy behaviours in patients? An overview of evidence for behaviour change techniques. *Health Promot Int*. 2011 Jun;26(2):148-62.
- van den Hout JH, Vlaeyen JW, Heuts PH, Zijlema JH, Wijnen JA. Secondary prevention of work-related disability in nonspecific low back pain: does problem-solving therapy help? A randomized clinical trial. *Clin J Pain*. 2003 Mar-Apr;19(2):87-96.
- Vereniging van Oefentherapeuten Cesar en Mensendieck (VvOCM). Beroepsprofiel oefentherapeut (2019). Utrecht: VvOCM; 2019. Available at <https://vvocm.nl/Portals/2/Documents/Kwaliteit/Kwaliteitsregistratie/Beroepsprofiel%20oefentherapeut.pdf?ver=2020-03-15-204730-810>.
- Wand T, Acret L, D'Abrew N. Introducing solution-focused brief therapy to mental health nurses across a local health district in Australia. *Int J Ment Health Nurs*. 2018 Apr;27(2):774-82.
- Zhang A, Park S, Sullivan JE, Jing S. The effectiveness of problem-solving therapy for primary care patients' depressive and/or anxiety disorders: a systematic review and meta-analysis. *J Am Board Fam Med*. 2018 Jan-Feb;31(1):139-50.

## Colophon

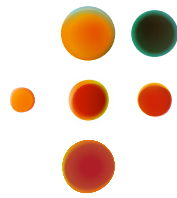
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