Self-management; could we do better?

Chris Littlewood PhD
NIHR Research Fellow
University of Sheffield

What is ‘self-management’?

• ...where people are encouraged to actively manage their symptoms, treatment, consequences and life-style changes associated with their condition
  » (Barlow et al. 2002; Lorig & Holman 2003)

• Wide ranging

What is ‘self-management’?

• Might include need to access experts
  • Physiotherapists

• From a physiotherapist’s perspective self-management should be seen as more than one session of advice, exercise and discharge
  • Although this might be sufficient for many
What is ‘self-management’?

• Challenge is that access to physiotherapy is not viewed as necessary pre-cursor to ‘self-management’
• Might be OK if patients could immediately access infinite resource
  • Does this sound like our NHS???

Evidence of effectiveness

• ‘Consistent evidence shows that self-management programs for osteoarthritis are effective in addressing pain and function, but effect sizes are small and might be clinically negligible.’
  » (May 2010)

• ‘...self-management has small effects on pain and disability in people with LBP. These results challenge the endorsement of self-management in treatment guidelines’
  » Oliveira et al (2012)

Evidence of effectiveness

• Not convincing...
• Also, not an approach valued by some physiotherapist’s:
  • ‘... well I think (physiotherapist) felt more or less straight away that it was unfortunate that I’d drawn the short straw...’
  • ‘I think there are some clients...you just think it’s totally inappropriate and a waste of time.’
    » Littlewood et al (2014)
Case for...

- An approach valued by patients:
  - ‘...it's been really positive...I can self-manage that now.’
  - ‘I thought it was great because doing it at home you could fit it in to your life rather being tied to going to the physio at a certain time on a certain day or two or three times a week.’

  » Littlewood et al (2014; PhD thesis)

Case for...

- Are we measuring the most relevant effects?
- Are we considering response shift?
  - phenomenon whereby, for example, a patients perspective on what's important might change as a result of an intervention.
- If response shift does occur it might challenge the validity of pre-/ post-test measurement if undertaken in the same way because what was important before the intervention might not be important after
E-mail exchange

• ‘I was wondering if you could give me any advice about back pain that I've been suffering from for a year.

• The MRI showed a slipped disc (L5/S1 I think) and I was referred for a microdiscectomy which didn't happen (long story). I had a steroid injection instead which hasn't done anything.

• I am literally at my wits end. I've been in pain every day for a year now and I think I'm depressed because of it. GPs and consultants don't seem to have a solution.’

• Oh no! There is lots that can be done but sadly GP's and consultants are rarely the answer to the questions that back pain poses.

• First; ignore the MRI - most people have 'slipped' discs, especially L5/S1; think of it as just a bit like blaming facial wrinkles for facial pain, i.e. unrealistic. But, sadly MRI's are overused and abused in terms of misreporting. So pleased the microdiscectomy didn't happen - you'll be better for it in the long run! And steroid injections never do anything apart from placate an anxious and frustrated patient for a few days or weeks at best.

• Secondly, back pain improves with time; it does, but can be difficult when an episode lasts so long. Depression or at least low mood is understandable and a very common 'side affect'. Because pain is also very much related to how our brain thinks, depression can prolong the suffering - a bit of a vicious cycle.

• Thirdly, have you seen a competent physio? I'm happy to talk things through with you in more detail but in my experience such informal practices rarely work for me or the patient, particularly when the patient is a colleague, friend or family. I would recommend xxx

• ‘Wow! You’re fantastic! All that sounds very reassuring.

• No I haven't seen a physio so thanks for that recommendation. I will follow it up.

• One thing I did neglect to tell you in my email was that I'm on a shed load of drugs too (Gabapentin, Tramadol, Amitryptyline). Also, are you saying that the back pain isn’t related to my disc?

• I have my follow-up appointment with my consultant on Wednesday. I will see what he has to say.'
• Typically people with low mood have heightened pain awareness so would tend to be on the drugs you describe because that is all the medics have to offer. An orthopaedic consultant will suggest your pain is due to the disc but;

• 1. Once your pain has gone the disc will still be ‘slipped’

• 2. People without back pain have slipped discs too.

• The pain experience is more complicated than slipped disc = back pain but this is not something that is well communicated by health professionals and so the poor patient is left with half a story (well fairy tale really!).

• I am flabbergasted that you have been suffering so long and have not been referred for physiotherapy; I thought those days were long gone. Generally it is expected that you would exhaust everything a physiotherapist can offer before going near a surgeon but sadly you’re not alone.

• You’ll be surprised how far a little understanding and attention by a quality physio can help you to take control rather than the back pain controlling you.

• ‘Thank you Chris. I really appreciate being listened to by someone who knows what they’re talking about. It makes all the difference.

• I can’t tell you how helpful you’ve been and how it’s starting to make me think differently about my situation.’

Critique of measurement
Attributes that might help us do better

- Considerations for the clinic...

Knowledge transfer

- How the patient perceives their problem is pivotal
  - Diagnosis, prognosis, effect of interventions
    - Research informed practice

- Patients don’t know what we know and don’t always hear what we want them to hear...
  - ‘rotary cap tear’
  - ‘floating cuff sprain’
  - ‘plantar fantasticals’

Knowledge transfer; diagnosis

- ‘When you raise your arm to shoulder height, the space between the acromion and rotator cuff narrows. The acromion can rub against (or “impinge” on) the tendon and the bursa, causing irritation and pain.’
  - Anonymous website

- ‘When nonsurgical treatment does not relieve pain...’
  - Same anonymous website
Knowledge transfer; diagnosis

- *Regarding patients with back pain & sciatica:*
  - ‘If additionally a clear herniated disc with nerve root compression on MRI was absent, the results were even worse...’
    - Barzouhi et al (2014)

Knowledge transfer; prognosis

- Need to understand how the patient thinks about their problem/ perceptions of need
- ‘You can’t expect something that you’ve had for months to disappear overnight and that was explained that it was going to take time’
  - Littlewood (2014; PhD Thesis)
- ‘...I think that when you find that they’re not making a great deal of improvement, you’re less inclined to erm continue it...’
  - Littlewood et al (2014)

Knowledge transfer; effect of interventions

- No evidence of long-term benefits of arthroscopic acromioplasty in the treatment of shoulder impingement syndrome; Five-year results of a randomised controlled trial
  - Ketola et al (2013)
- ‘Differences in the patient-centred primary and secondary parameters between the two treatment groups were not statistically significant, suggesting that acromioplasty is not cost-effective. Structured exercise treatment seems to be the treatment of choice for shoulder impingement syndrome.’
Knowledge transfer; effect of interventions

• A review of systematic reviews of the effectiveness of conservative interventions for rotator cuff tendinopathy
  • Littlewood et al (2013)
  • ‘Surgery does not confer an additional benefit over exercise alone or multimodal physiotherapy. Combining manual therapy with exercise is not currently supported, neither is the use of corticosteroid injections or acupuncture. Other commonly prescribed interventions lack evidence of effectiveness.’

Knowledge transfer; effect of interventions

• Confirmation bias
  – Interpret information in a way that confirms own pre-existing beliefs
  • The scourge of physiotherapy!!
  • Significant barrier to progression and evidence based practice

Skill attainment

The Grumpy Physio (@TheGrumpyPhysio) Aug 25
We rehearsed your 2 simple exercises for 30 minutes solid last week, so why the feck are you doing this weird s**t now!
#GiveMeStrength
Skill attainment

• Enhancement of self-efficacy expectation:
  – Confidence or conviction that one can successfully perform a specific task or behaviour (Newman et al. 2009)
  • ‘...here’s your list of 10 exercises that I’ve printed off for you...’
  • ‘...I’ll e-mail them to you; call me if you’ve got any problems...’

• Behaviour is directly influenced by self-efficacy expectations and indirectly by outcome expectations
  – Estimate that certain behaviour, for example regular exercise, will lead to certain outcomes (Bandura 1977)

Skill attainment

• Someone might believe that, for example, exercise has the potential to remedy their ‘complaint’ but if they doubt whether they can successfully undertake the programme due to, for example, time limitations or technical difficulties, then their behaviour will not change

Skill attainment

Person  Behaviour  Outcome

Self-efficacy expectations  Outcome expectations

Mastery  Modelling  Verbal persuasion  Physiological signs
Self-monitoring

- Self-monitoring is regarded as a cornerstone of successful self-management (Newman et al. 2009).

  - ‘I don’t feel as though I’ve made any progress...’
  - ‘Well, last time we met you could only do x but now you can do y...’
  - ‘Oh yeah, guess I have made progress then...’

Self-monitoring

- Exercise diary

Self-monitoring / Goal setting
**Problem solving/ Pro-active follow-up**

- ‘I didn’t manage…’
- ‘I can’t…’
- ‘I don’t…’
- ‘What is…’

- How can we facilitate self-managed behaviour?

---

**Problem solving**

- ‘the hardest thing for a physio or doctor to do at times is..... **NOTHING!**’
  
  — Meakins (2014)

- ‘I didn’t do them...I don’t know - because I thought they were doing it for me. I thought oh well, I’m going back next week.’
  
  — Littlewood et al (2014)
Problem solving/ Pro-active follow-up

• Follow-up; consider
  – Type, e.g. Text, telephone, face-to-face
  – When?
    • To meet the needs of the patient
  – Why?
    • What is the purpose of the follow-up?
      – Be explicit, e.g. Exercise review and progression

A typical session in the SELF study

- Review of exercise diary/ discuss any barriers
- Discuss progress with reference to PSFS
- Review exercise performance and progress, if appropriate
- Agree new goals using PSFS
- Agree next follow-up

The SELF study

![Graph showing SPADI Score (0 to 100) over Time (months)]
So...

• Self-management; could we do better?

• Has the way I think about self-management changed over time?
  – YES

• Self-management; could you do better?

@PhysioChris