

Patient education and health literacy

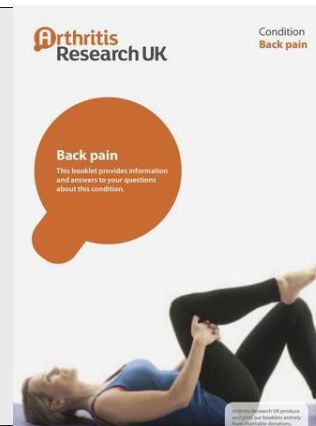
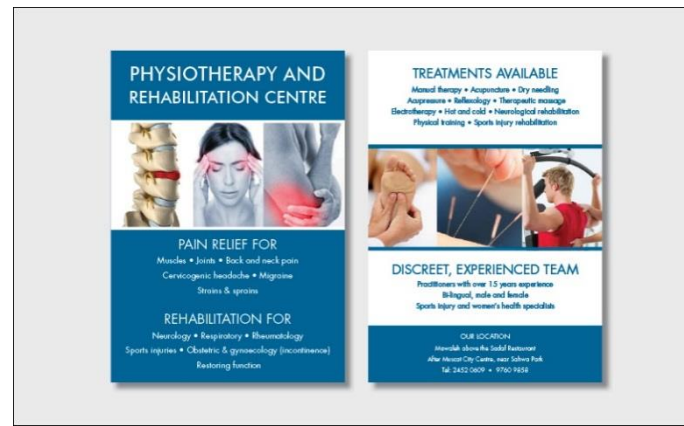


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PATIENT EDUCATION

- 1970-ies: response to initial patient groups to the right to be fully informed about their diseases
 - Early patient education in curricula
- Mid 1990-ies: patients' right is established to receive all information that is necessary to give an “**informed consent**” on all diagnostic, therapeutic and research procedures (Patients' bill of rights)



Does structured patient education improve the recovery and clinical outcomes of patients with neck pain? A systematic review from the Ontario Protocol for Treatment of Neck Pain

Structured patient education may provide small benefits when combined with physiotherapy.

Review article

Effect of education on recovery and clinical outcomes of patients with neck pain: A meta-analysis

Kantheera Airallard J. van der

^a Department of Physical Therapy
^b Department of Public Health

Back schools for the treatment of chronic low back pain: possibility of benefit but no convincing evidence after 47 years of research – systematic review and meta-analysis

Sebastian Straube^{1*}, Markus Harden², Heiko Schröder², Barbora Arendacka², Xiangning Fan¹, R Andrew Moore³, Tim Friede²

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Keywords:

Education

Spinal pain

Musculoskeletal disorders

Patient education not effective in preventing and treating neck pain as well as treating low back pain

pain.

Methods: Publications were systematically searched from 1982 to March 2015 in several databases. Relevant RCTs were retrieved and assessed for methodological quality. Meta-analysis was conducted to examine the effectiveness of education for the prevention and treatment of non-specific neck and low back pain. The overall quality of evidence was assessed using the GRADE system.

Results: Thirty-six RCTs (30 high-quality studies) were identified. A total of 15 RCTs, which compared education programs to no education program, were included for further analysis. All studies included investigated the effectiveness of education with intermediate- and long-term follow-ups. The results showed that education programs were not effective in preventing and treating neck pain as well as treating low back pain. Conflicting evidence was found for the effectiveness of education on prevention of low back pain.

PATIENT EDUCATION



Results disappointing

Not tuned to individual preferences and needs patients



RESEARCH

Open Access

Effects of education to facilitate knowledge about chronic pain for adults: a systematic review with meta-analysis



Louise J. Geneen^{1*}, Denis J. Martin², Nicola Adams³, Clare Clarke⁴, Martin Dunbar⁵, Derek Jones⁶, Paul McNamee⁷, Pat Schofield⁸ and Blair H. Smith¹

- limited evidence
- the only support for this type of education is for Pain Neurophysiology Education (PNE).

PURPOSE PATIENT EDUCATION

- the provision of accurate and truthful information
 - so that a person can become knowledgeable about the subject and make an informed choice (WHO 2007).
- get individuals to actively participate in their care and have knowledge and skills to manage their self-care in the best way (Hansen-Berg 2001).
- To increase health literacy

HEALTH LITERACY

Health literacy is linked to literacy and entails

people's knowledge, motivation and competences to access, understand, appraise and apply health information in order to make judgements and take decisions in everyday life concerning health care, disease prevention and health promotion to maintain or improve quality of life during the life course.



HEALTH LITERACY

“The personal, cognitive and social skills which determine the ability of individuals to gain access to, understand, and use information to promote and maintain good health”



HEALTH LITERACY LEVELS

- are related to educational level, literacy, ethnicity and age
 - **functional**: basic skills in reading and writing necessary for effective functioning in health context
 - **interactive**: more advanced cognitive literacy and social skills that enable active participation in health care
 - **critical**: the ability to critically analyze and use information to participate in actions that overcome structural barriers to health.

CRITICAL HEALTH LITERACY: THE EASY PATIENT..

- Comes on time and is prepared
- Understands the problem and can explain cause (and sequence)
- Can clearly articulate realistic goals
- Completes questionnaires without complaining
- Remembers information, poses smart questions
- Complies with therapy
- Gets better with therapy



~ 60% CANADIANS POOR HEALTH LITERACY SKILLS



National indicators of health literacy: ability to understand health information and to engage actively with healthcare providers - a population-based survey among Danish adults

Anne Bo¹, Karina Friis², Richard H Osborne³ and Helle Terkildsen Maindal^{1*}

N= ~ 30.000

Between 9 - 20% perceived the health literacy tasks as difficult or very difficult

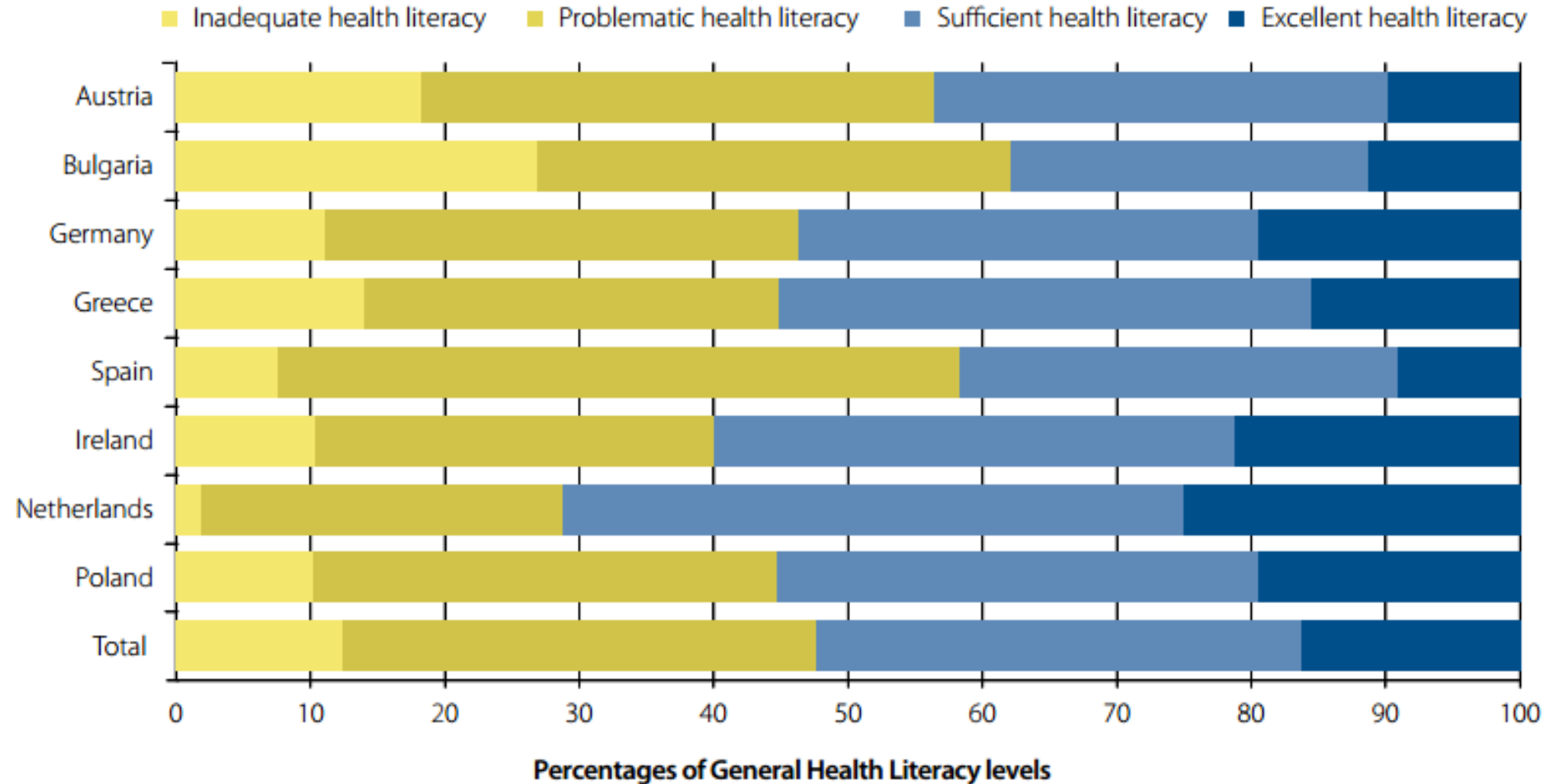
Low income, low educational level, non-Danish ethnicity → 20 - 40%

Results: A total of 29,713 (99.7%) responded to the survey. Between 9.0%, 95% CI: 8.7-9.2 and 20.2%, 95% CI: 19.0-20.9 of the general population perceived the health literacy tasks as difficult or very difficult at the individual item level. On the scale level, the mean rating for i) understanding health information was 3.10, 95% CI: 3.09-3.10, and 3.07, 95% CI: 3.07-3.08 for ii) engagement with health care providers. Low levels of the two dimensions were associated with low income, low education level, living alone, and to non-Danish ethnicity. Associations with sex and age differed by the specific health literacy dimension.

Conclusion: Estimates on two key dimensions of health literacy in a general population are now available. A substantial proportion of the Danish population perceives difficulties related to understanding health information and engaging with healthcare providers. The study supports previous findings of a socio-economic gradient in health literacy. New insight is provided on the feasibility of measuring health literacy which is of importance for optimising health systems.

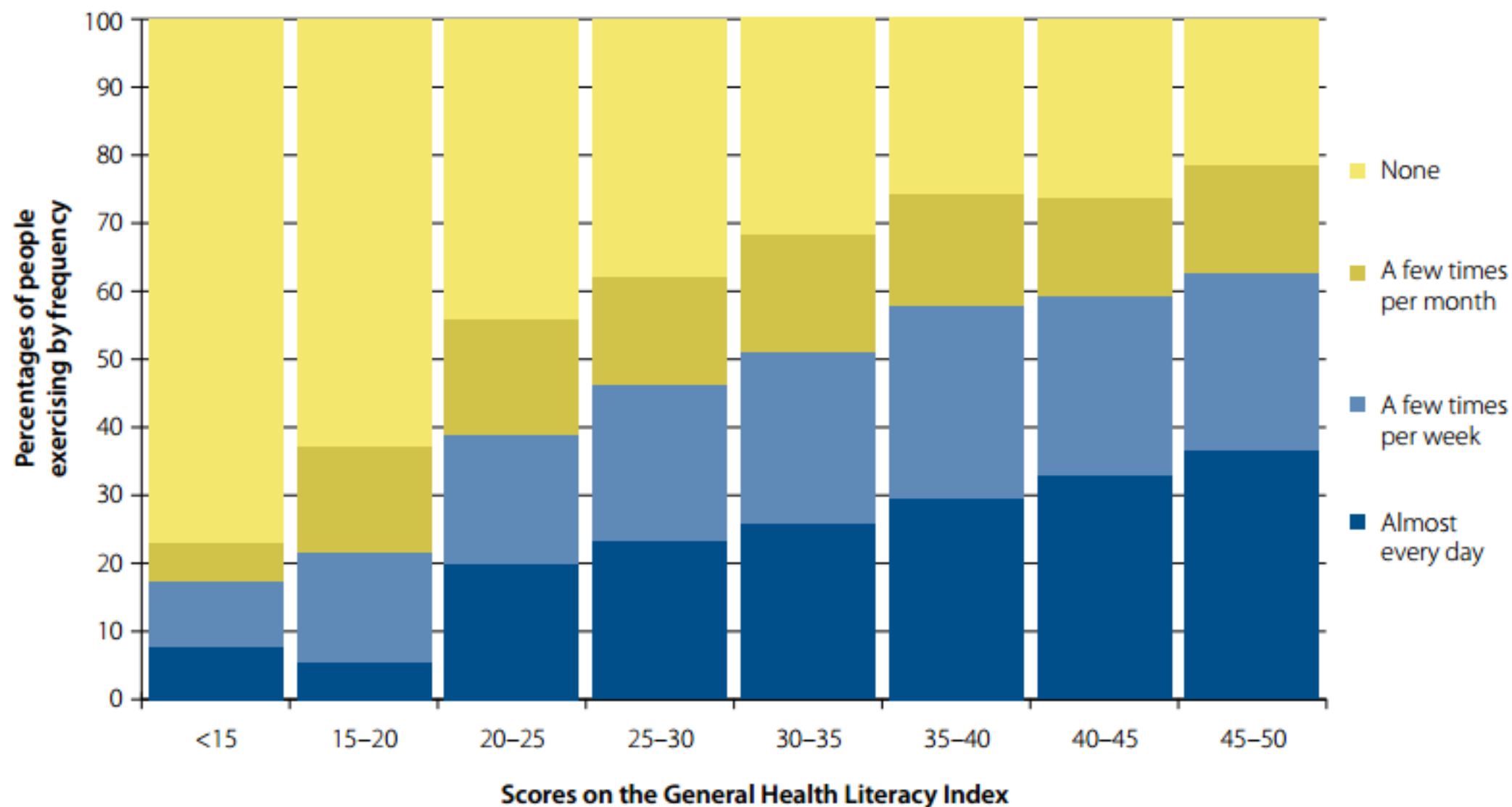
Keywords: Health literacy, Health competence, Patient-centred care, Patient participation, Doctor-patient relations, Health information, Socioeconomic factors, Inequality in health, Population survey, Health literacy questionnaire (HLQ)

HEALTH LITERACY IN EUROPE



adapted from: Comparative report on health literacy in eight EU member states. The European Health Literacy Project 2009–2012. Maastricht, HLS-EU Consortium, 2012 (<http://www.health-literacy.eu>, accessed 15 May 2013).

Frequency of physical exercise according to scores on the General Health Literacy Index for the 7767 respondents in the European Health Literacy Survey



LIMITED HEALTH LITERACY

- Insufficient reading, writing or numeracy skills for effective functioning in health context



Be t u ooit geope eerd?
Heeft u een v atproth se of
hart epprot es?
Bent u zwanger?
Bent u van pl n op kor e term
te wor en?



COMMUNICATION BREAKDOWN

House episode clip...



PATIENT EDUCATION



What did he tell me to do?

We can't afford the medication we need.

My questions can wait..he's too busy.

He doesn't need to know I take garlic instead of Lipitor.

Oh by the way... nah..that pain in my chest can wait.

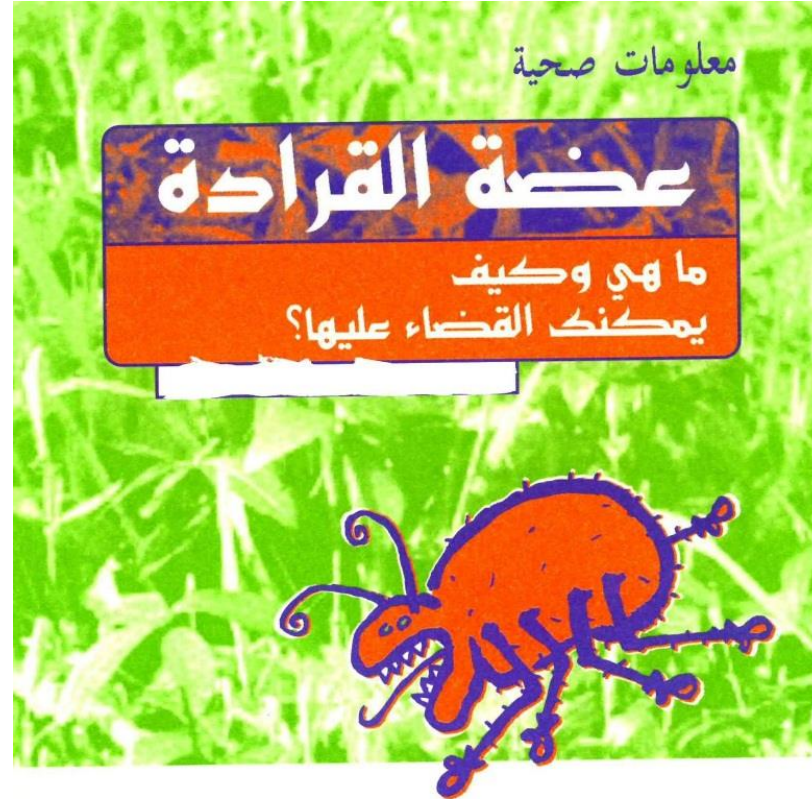
I love patients that do what I tell them.

HDL is a bit high... but as his age why be too aggressive.

No questions..good. He must understand what I told him.



Leest u dit maar even rustig door



من هذا الكتيب؟ يستلم كل شخص في هولندا بهذه المعلومات. وهذه المعلومات مهمة لك ولأطفالك. وخصوصا إذا كنت تمشي أحيانا على العشب أو في الغابة أو قمت بتناول طعامك في الهواء الطلق. فإذا عضتك قرادة يمكن أن تمرض. ويطلق على هذا المرض 'مرض لايم' 'de ziekte van Lyme'. ومن حسن الحظ أنه يمكنك وقاية نفسك من من هذا المرض. كيف يتم ذلك؟ اقرأ ذلك في هذا الكتيب.

SIGNS OF LIMITED HEALTH LITERACY

Behavior in the clinic

I do not complete questionnaires
I ask few (basic) questions
I often miss appointments
I am passive in treatment
I do not follow-through with home exercise / referrals to other providers
And, by the way, my head hurts too...

Reaction to written information

I have forgotten my glasses,
I'll read this when I get home/
can you read this to me?
I'll discuss this at home
with..(wife / children)



RESEARCH ARTICLE

Open Access

How the stigma of low literacy can impair patient-professional spoken interactions and affect health: insights from a qualitative investigation

Phyllis Easton^{1*}, Vikki A Entwistle² and Brian Williams³

“... I’m like that, ‘Oh no, they’re wanting me to write something,’ start panicking and that seems to take over you and sometimes you’re like that, ‘What was they saying there?’ because the anxiety’s took over what’s going on.” (Louise, female, 40s)



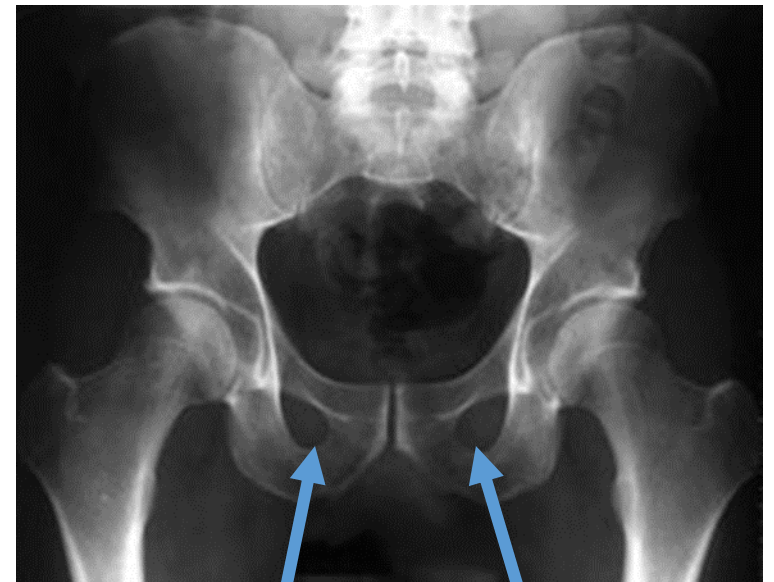
“..... I couldn’t spell it. I just went, ‘You know what, I’m going to have to go. I’m not feeling very good. I’ll come back, I will come back’ and I grabbed it [the form] and ran out.” (Barbara, female, 50s)

LIMITED HEALTH LITERACY

- Maladaptive illness perceptions



I have low back pain..



Obturator foramen

ILLNESS PERCEPTIONS - CSM OF SELF REGULATION

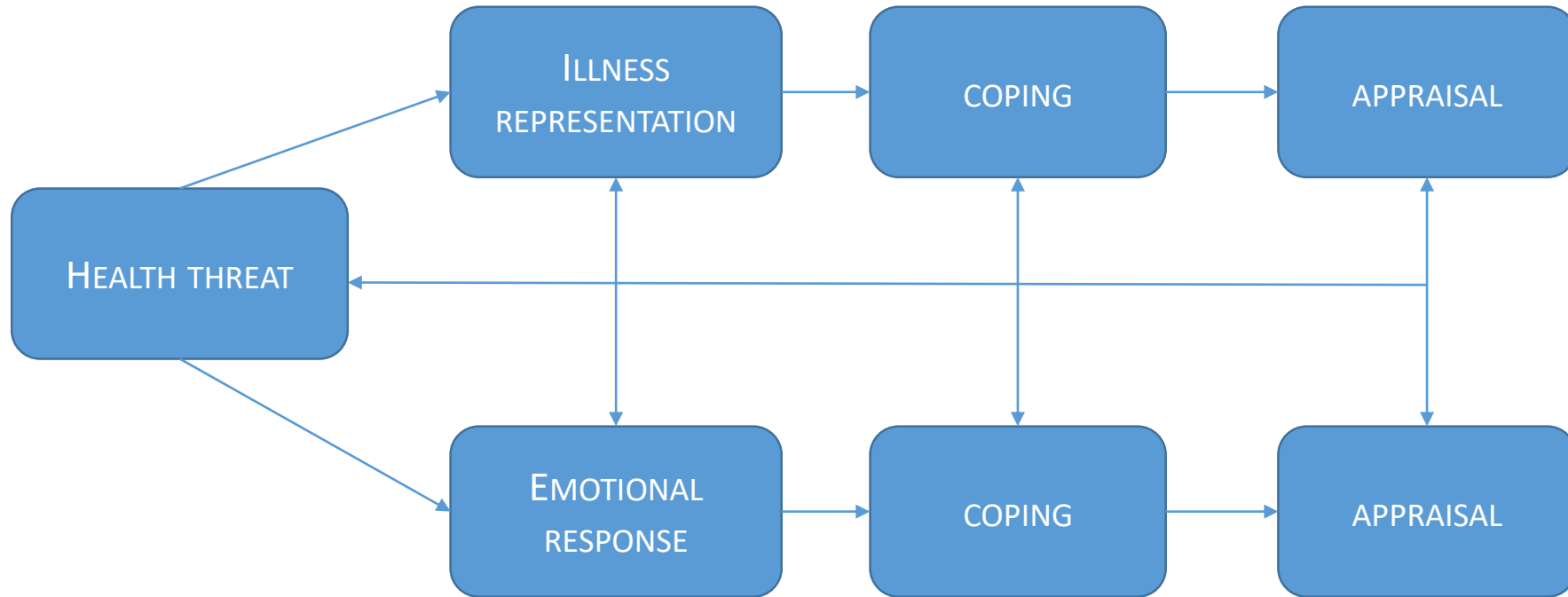
Patient beliefs

1. What do I have?
2. What caused it?
3. What are the consequences?
(short and long term outcomes)
4. How long will it last?
5. What can I or my healthcare providers do to influence it?

Illness perceptions

1. Identity
2. Cause
3. Consequences
4. Timeline
5. Cure or control

LEVENTHAL COMMON SENSE MODEL OF SELF REGULATION



EDWIN J. DE RAAIJ, PT, MSc^{1,2} • RAYMOND W. OSTELO, PhD^{2,4} • FRANCOIS MAISSAN, PT, MSc^{1,2}
JURGEN MOLLEMA¹ • HARRIËT WITTINK, PhD¹

The Association of Illness Perception and Prognosis for Pain and Physical Function in Patients With Noncancer Musculoskeletal Pain: A Systematic Literature Review

- Limited to moderate evidence for a consistent direction of the relationship of illness perceptions with pain intensity and physical function.
- Higher (maladaptive) illness perceptions imply stronger pain intensity and more limitation in physical function. Evidence in longitudinal studies is lacking, especially on pain intensity.

(MALADAPTIVE) ILLNESS PERCEPTIONS: ASSOCIATED WITH POOR OUTCOME

- Low recovery expectations CLBP (Iles et al. 2009)
- Expectations LBP will last a long time (Foster 2008, Campbell 2012, Henschke 2008)
- Serious consequences (Moss-Morris 2007)

- Change in cognition accounted for 26% of variance in improved physical functioning (Moss-Morris 2007)

CONSULTATION

BELIEFS

BELIEFS



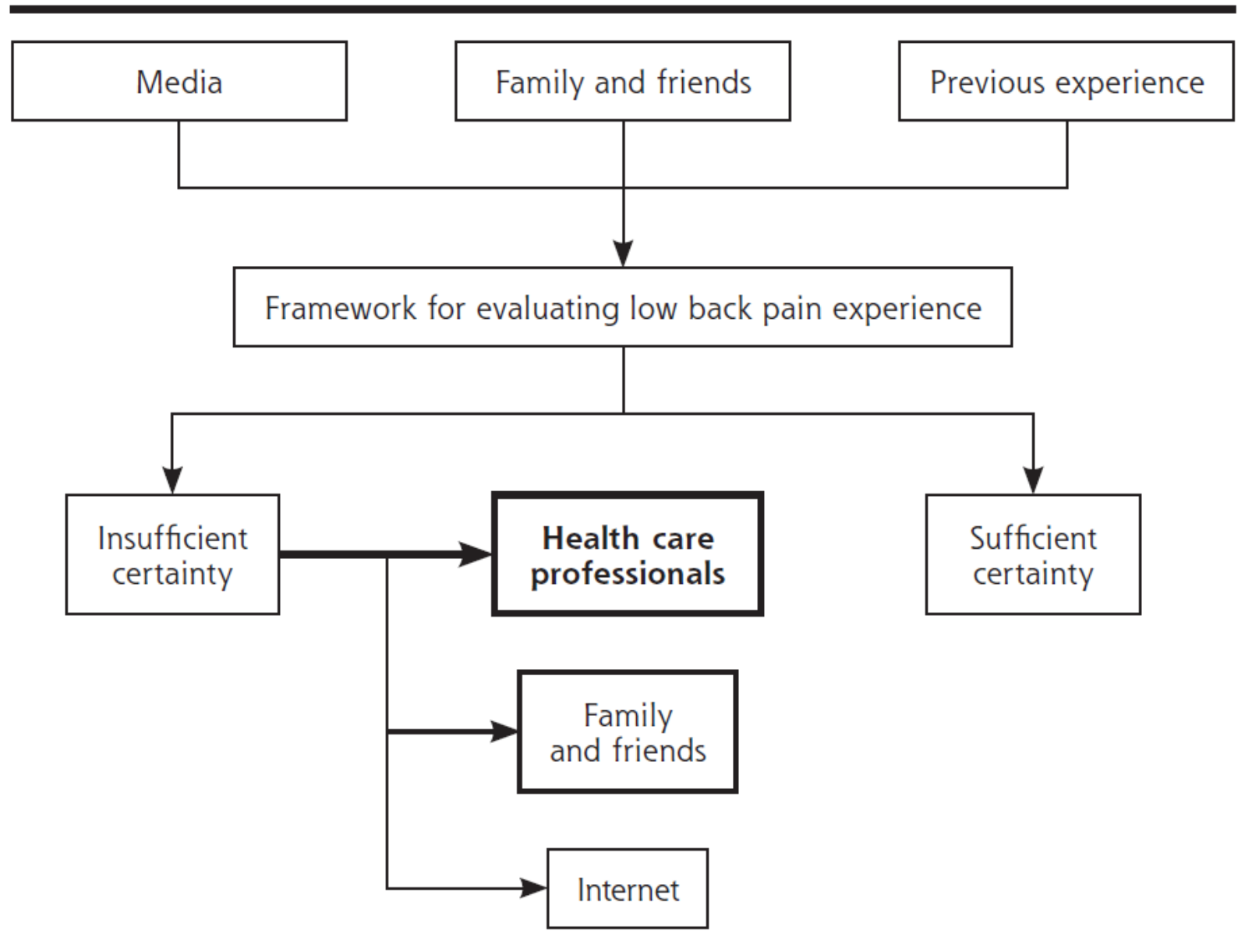
Oosterhof 2014
Verbeek 2004
Liddle 2007
Van der Hulst 2005
Daykin 2004

I AM AFRAID TO MAKE THE DAMAGE WORSE..



Fear of hurting the fragile body

Figure 1. Thematic framework.



WHAT WE SAY TO PATIENTS..



Dr. Bahram Jan
2016



<https://www.youtube.com/watch?v=8BVRv2iuRXA>

Your vertebra
is displaced

“You are missing 6
intervertebral discs, that’s
not ok”

NOCEBO

You shouldn’t go
back to work with
the work you have

If you lie on your
stomack it coaxes
the disc back in

Darlow et al. 2013
Stenberg et al. 2013
Oosterhof et al.2014

LBP GUIDELINE – PATIENT EDUCATION

- Do not utilize patient education and counseling strategies that either directly or indirectly increase the perceived threat or fear associated with low back pain

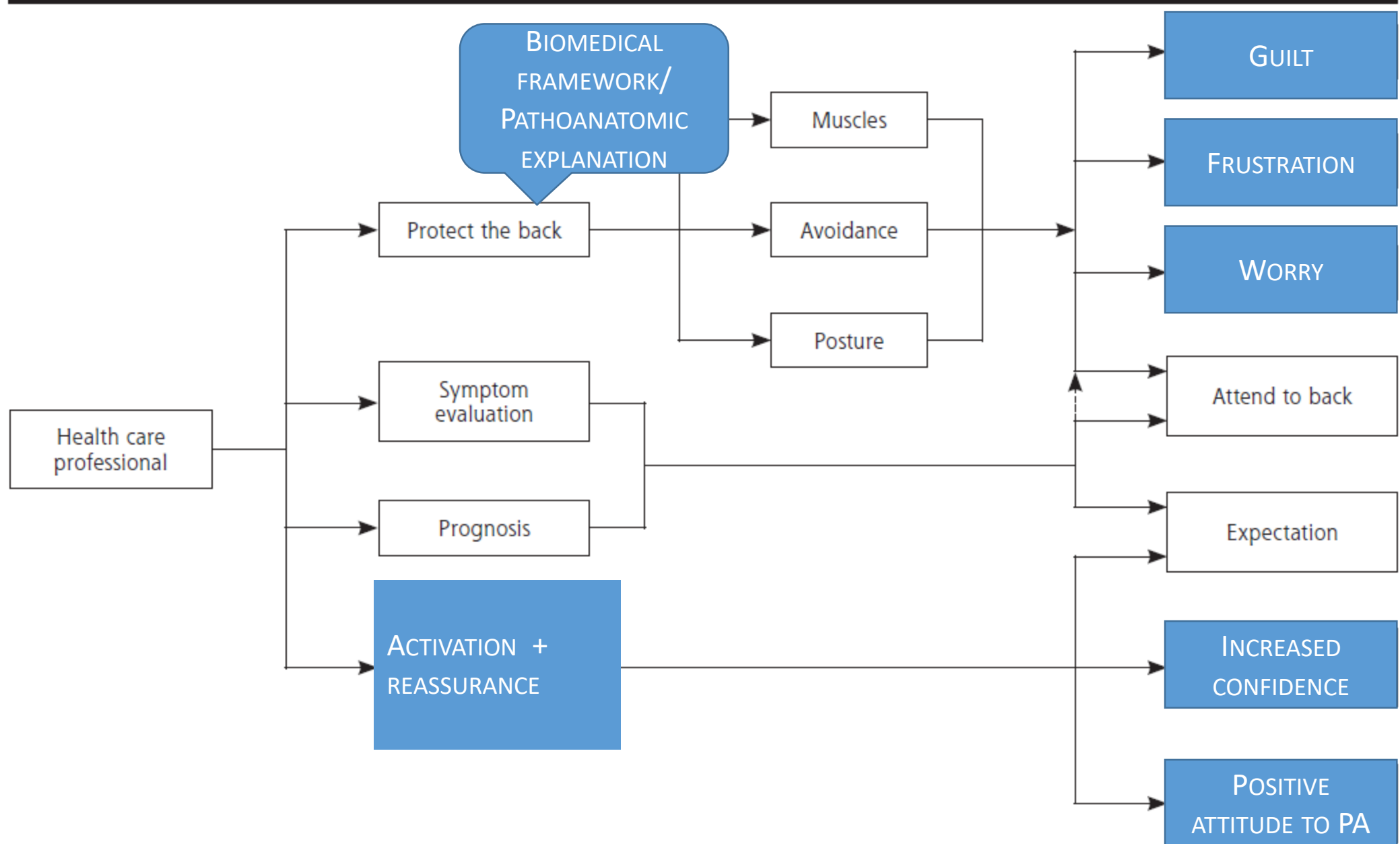
such as:

in-depth, pathoanatomical explanations for the specific cause of the patient's low back pain.

LBP GUIDELINE – PATIENT EDUCATION

- Reassurance, reassurance, reassurance (be specific!)
- Favorable prognosis LBP
- Get back to work even in pain
- Stay or get active even in pain

Figure 2. Health care professionals' influence on participants.



CONSULTATION



Oosterhof 2014
Verbeek 2004
Liddle 2007
Van der Hulst 2005
Daykin 2004

The Brief Illness Perception Questionnaire

The Brief Illness Perception Questionnaire (BIPQ)

- Kort spørgeskema om sygdomsopfattelse

Ved hvert spørgsmål bedes du venligst sætte en ring omkring det tal, som stemmer bedst overens med din oplevelse:

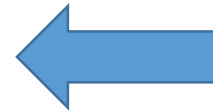
Hvor meget påvirker din sygdom dit liv?	1	2	3	4	5	6	7	8	9	10
Slet ingen påvirkning										Alvorlig påvirkning
Hvor lang tid tror du, at du vil være syg?	1	2	3	4	5	6	7	8	9	10
Meget kort tid										Altid
Føler du, at du har kontrol over din sygdom?	1	2	3	4	5	6	7	8	9	10
Ingen kontrol overhovedet										Meget stor kontrol
Tror du behandlingen kan indvirke positivt på din sygdom?	1	2	3	4	5	6	7	8	9	10
Nej, slet ikke										Ja, i høj grad
I hvor høj grad oplever du symptomer pga. din sygdom?	1	2	3	4	5	6	7	8	9	10
Slet ingen symptomer										Mange alvorlige symptomer
Er du bekymret over din sygdom?	1	2	3	4	5	6	7	8	9	10
Slet ikke bekymret										Meget bekymret
Føler du, at du forstår din sygdom?	1	2	3	4	5	6	7	8	9	10
Forstår den slet ikke										Forstår den meget klart
Påvirker din sygdom dig følelsesmæssigt? (Dvs. gør den dig vred, bange, urolig eller deprimeret?)	1	2	3	4	5	6	7	8	9	10
Slet ingen påvirkning										Meget stor påvirkning

Angiv i prioriteret rækkefølge, hvad du mener, er de tre vigtigste årsager til din sygdom.

De tre vigtigste årsager er:

1.
2.
3.

ASSESS ILLNESS BELIEFS



Kleinman's Nine Questions, developed by Dr. Arthur Kleinman, is a tool consisting of questions used to bring out a patient's health beliefs. The questions are:

What do you call your problem? What name does it have?

What do you think caused your problem?

Why do you think it started when it did?

What does your sickness do to you? How does it work?

How severe is it? Will it have a short or long course?

What do you fear most about your disorder?

What are the chief problems that your sickness has caused for you?

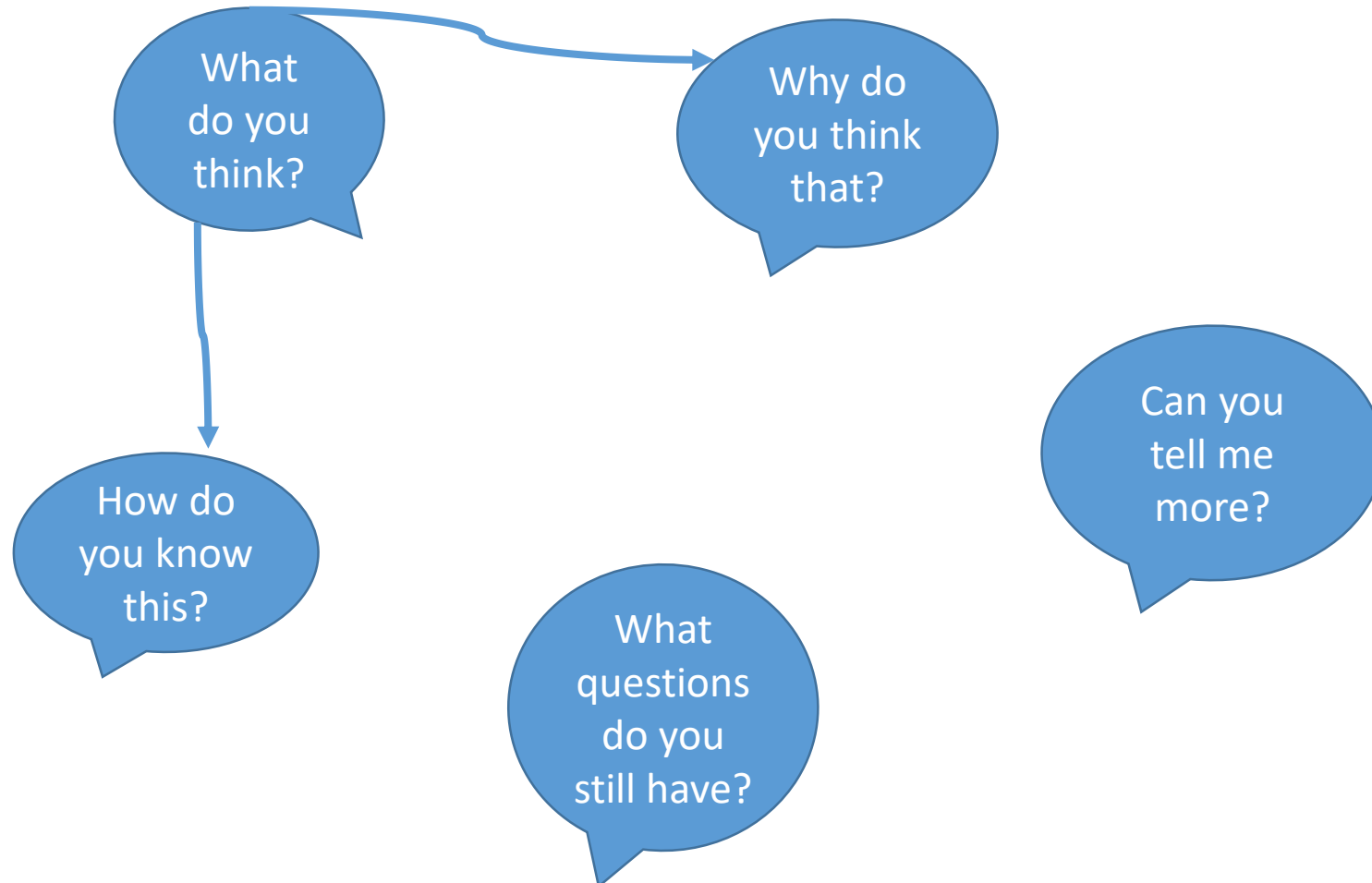
What kind of treatment do you think you should receive?

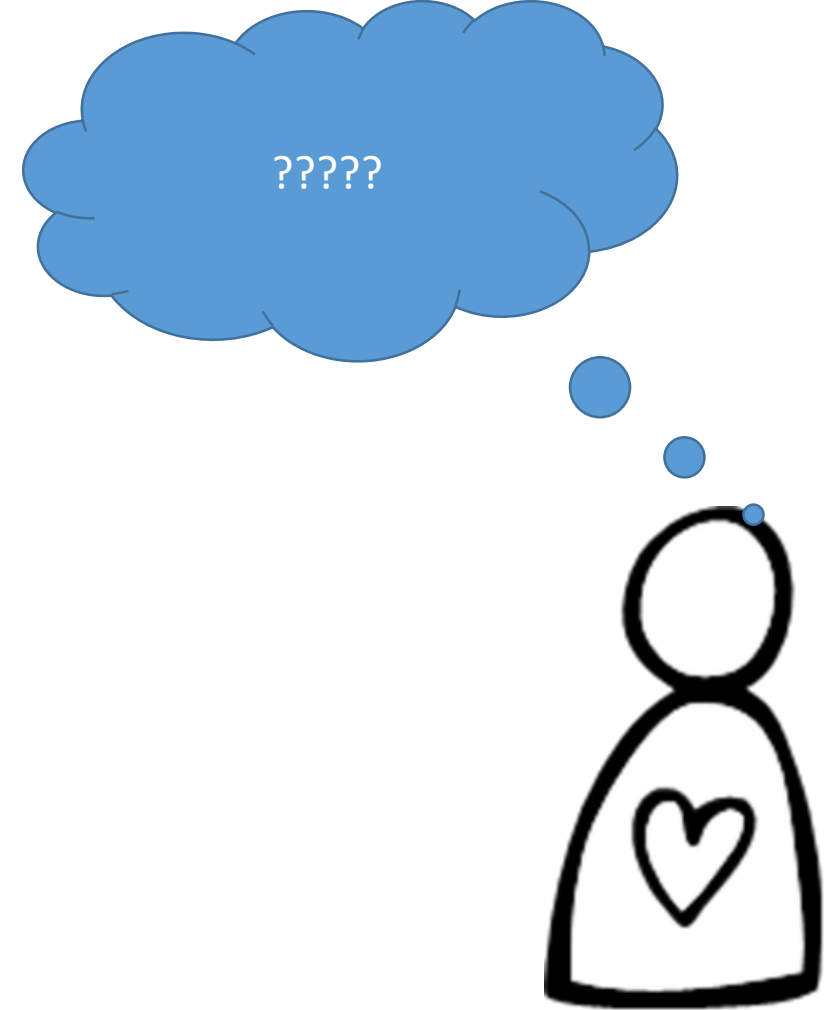
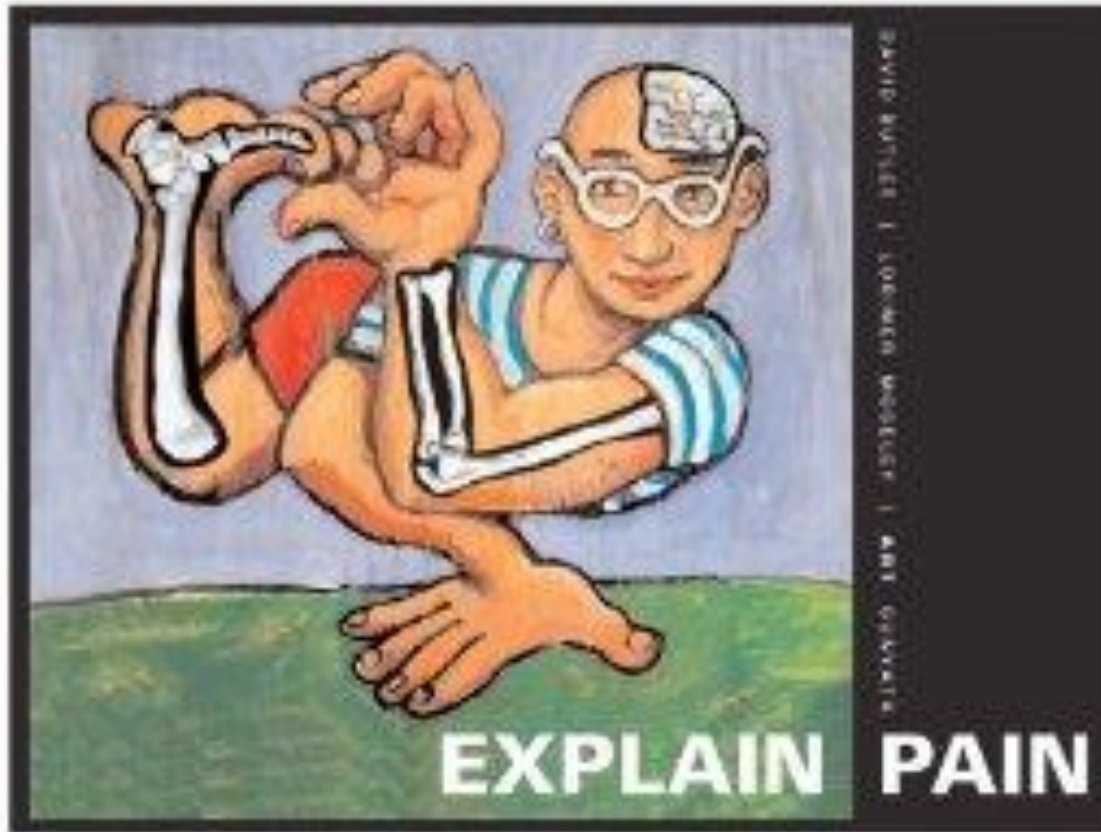
What are the most important results you hope to receive from the treatment?



CHALLENGE (MALADAPTIVE) BELIEFS

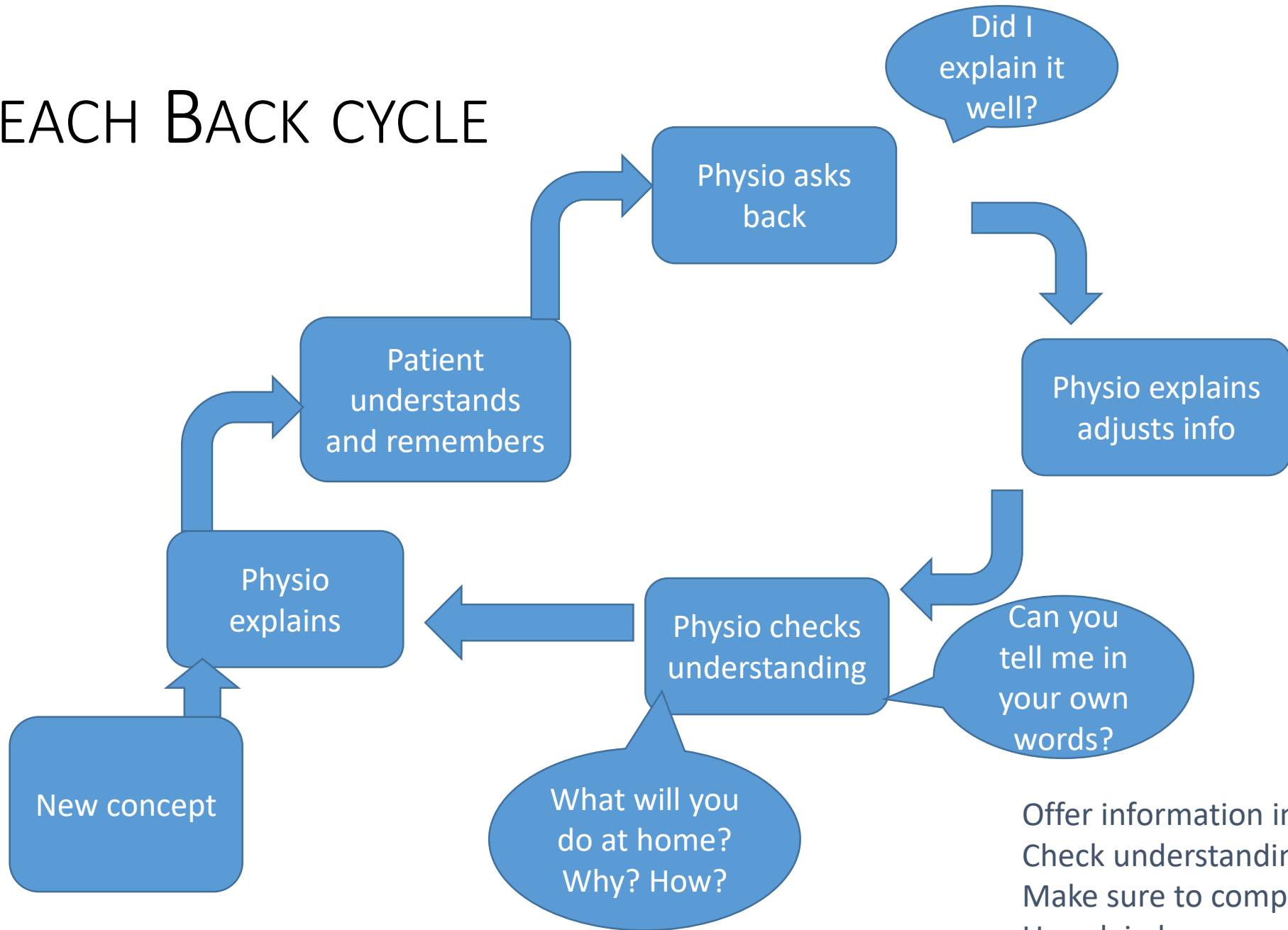
(SOCRATIC DIALOGUE)





Focus Pain Neurophysiology Education is on changing beliefs,
shift from pain = tissue damage
to perceived need brain to protect body tissue

TEACH BACK CYCLE



Offer information in “chunks”
Check understanding after each “chunck”
Make sure to complete the cycle
Use plain language

PLAIN LANGUAGE — WHAT IS IT?

- Short sentences, simple words
- Use present tense
- Use the same words as your patients
- Speak clearly, not too fast
- Limit the information (3-5 key points)
- Be concrete
- Use simple pictures, drawings

Research

Gillian Rowlands, Joanne Protheroe, John Winkley, Marty Richardson, Paul T Seed and Rima Rudd

In England, 42% of working-age adults are unable to understand and make use of everyday health information, rising to 61% when numeracy skills are also required for comprehension.

Abstract

Background

Low health literacy is associated with poorer health and higher mortality. Complex health materials are a barrier to health.

Aim

To assess the literacy and numeracy skills required to understand and use commonly used English health information materials, and to describe population skills in relation to these.

Design and setting

An English observational study comparing health materials with national working-age population skills.

Method

Health materials were sampled using a health

INTRODUCTION

Health literacy skills are 'the motivation and ability of individuals to access, understand, and use information in ways which promote and maintain good health'.¹ The most fundamental skills are those 'needed ... to function in everyday (health) situations to access and use information'.² Low health literacy is associated with greater use of medical services, less preventive care, greater difficulty managing long-term illnesses,³ lower levels of health,³⁻⁵ and higher mortality in older people.^{3,4} Levels of health literacy have been surveyed in several industrialised countries, that is, the US, Canada, Australia, and the EU, with the

and numeracy skills needed to understand and use these; and to describe the English working-age population in relation to these thresholds.

METHOD

Health materials in England were purposively sampled using a framework developed to capture literacy and numeracy skills needed to become and stay healthy.¹² This framework has been used in several national health literacy surveys.⁶⁻⁸ Suitable topics within framework areas (for example, within health promotion: how to maintain a healthy weight) were discussed and agreed by the research team. Materials

CLINICAL RESEARCH

Most American Academy of Orthopaedic Surgeons' Online Patient Education Material Exceeds Average Patient Reading Level

- Mean recommended level: 6th grade
- Mean level AAOS educational material: 9.2 grade

Readability scores

- <https://readability-score.com/text/> OR <http://www.readabilityformulas.com/free-readability-formula-tests.php>
- **The Flesch Reading Ease formula** will output a number from **0 to 100** - a higher score indicates easier reading.
- **An average document has a Flesch Reading Ease score between 6 - 70.** As a rule of thumb, scores of **90-100** can be understood by an average 5th grader.
- 8th and 9th grade students can understand documents with a score of **60-70**; and college graduates can understand documents with a score of **0-30**.

Text

Save

Load

History

Help

Measure Readability

Patient info

Excis acr

This leaflet has b
the Acromioclavi
of the operation i

What is an ex

The acromioclavi
portion of the shc
(clavicle) join tog
a degenerative d
of this joint. This
lead to the forma
involves removal
associated bony

The aim of this op
of the acromiocl
prevent the two s
decreasing your
of the joint will nc

Possible associ

During your oper
other areas of da
These include: -

Patient information

Excision of the acromioclavicular joint

This leaflet has been designed to give you some more information about having an

Excision of the Acromioclavicular joint. Your surgeon believes you will benefit from this operation. The aim of the operation is to reduce your pain and so improve your function.

What is an excision of the acromioclavicular joint?

The acromioclavicular (AC) joint is located at the tip of the shoulder where the acromion portion of the shoulder blade (scapula) and collarbone (clavicle) join

together. Arthritis of the acromioclavicular joint is a degenerative disease resulting in narrowing and irregularity of this joint. This arthritis causes a loss of cartilage and can lead to the formation of bony spurs. Excision of the joint

involves removal of the lateral end of the clavicle and any associated bony spurs.

The aim of this operation is to remove the degenerative ends of the

acromioclavicular joint to increase the joint space and prevent the two surfaces

rubbing together and therefore decreasing your pain. In the long term, the

Readability Formula

Grade

Flesch-Kincaid Grade Level

11.5

Gunning-Fog Score

14.6

Coleman-Liau Index

14

SMOG Index

13.8

Automated Readability Index

10.1

Average Grade Level

12.8

Readability Scores



Readability Formula

Score

Flesch-Kincaid Reading Ease

40.2

Spache Score

4.8

New Dale-Chall Score

6.3

Text Quality



Sentences > 30 Syllables

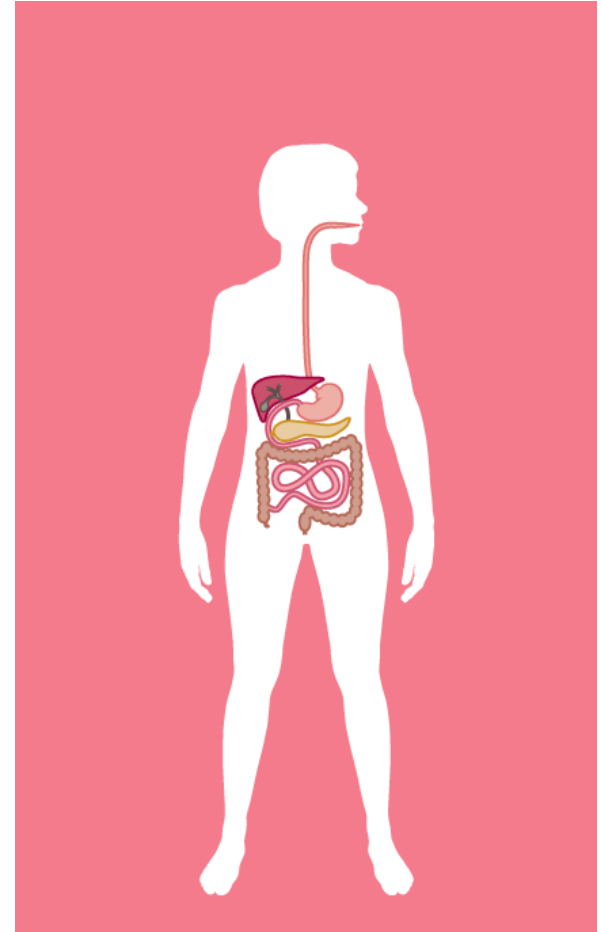
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RULES FOR WRITTEN INFORMATION

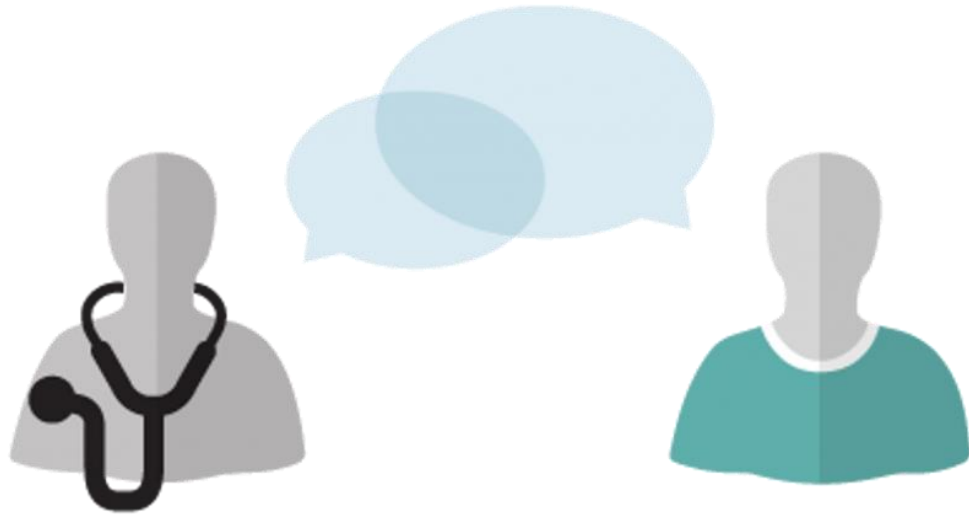
- Use every day language
- **6th** grade level or lower
- Short, clear, and simple
- Make it personal: “you” and “we”
- Patient’s experience of the condition, rather than the pathophysiology.
- e.g. Not plantar fasciitis, but a sore foot...

LAY-OUT

- Bigger letters
- Clear letter type (Ariel)
- More distance between the lines
- Brightly colored headings
- Clear pictures

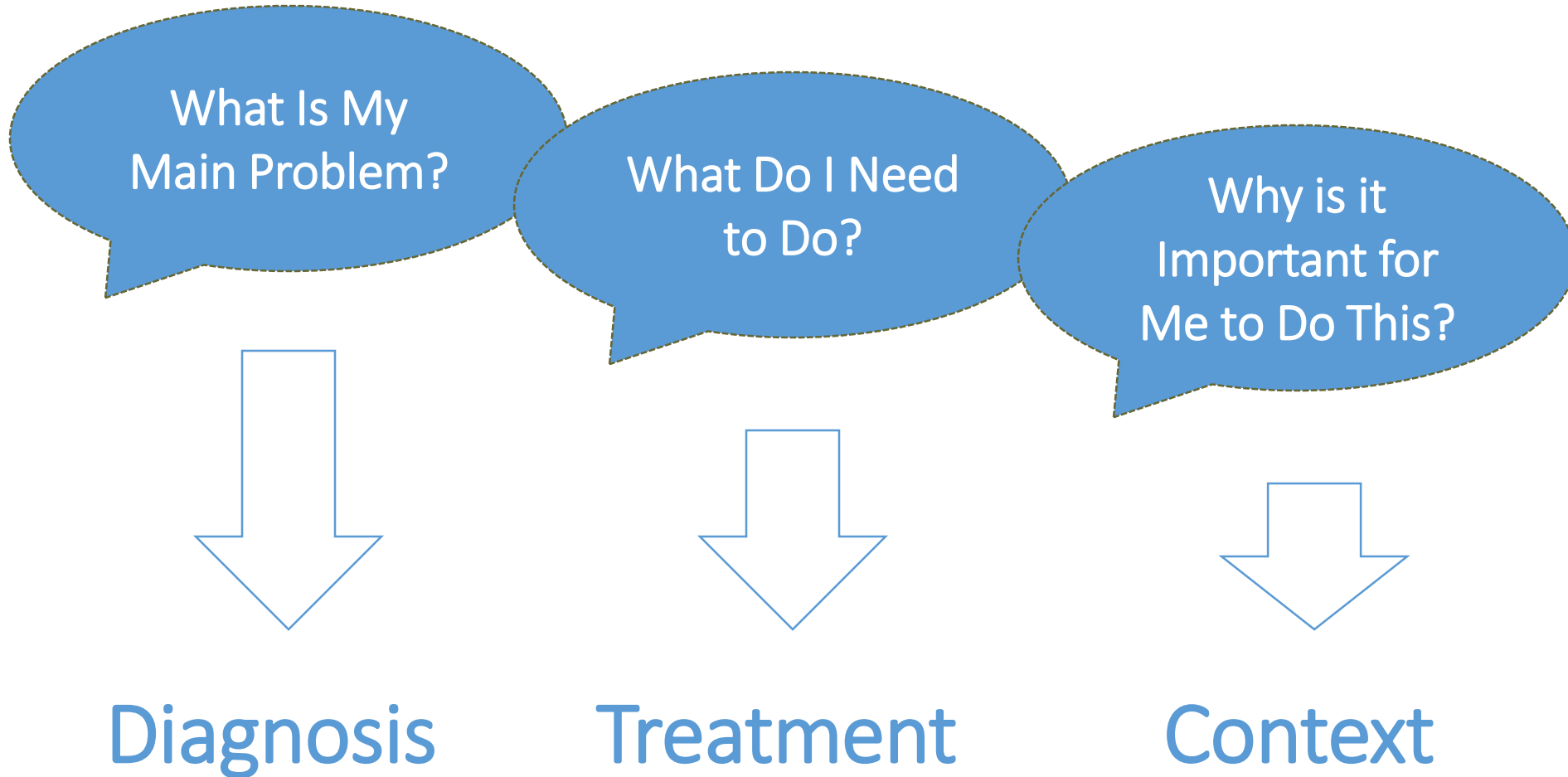


PATIENT EDUCATION



- **Patient centered care**
- provide information in a face-to-face consultation in which the needs, preferences and individual wishes can be established in a two-sided way of communication.
- Information exchange
- Knowledge co-creation

MAKE SURE YOUR PATIENT KNOWS THE ANSWER TO 3 QUESTIONS



European Diploma In Pain Physiotherapy



The next sitting of the Examination for the European Pain Federation Diploma in Pain Physiotherapy (EDPP) will take place at the Gasthuisberg campus of the University of Leuven on the 13th of April 2019. Candidates are expected to be present from 10:00 until 16:00.

The address of the campus is UZ Leuven, Herestraat 49, 3000 Leuven. A more precise location will be provided in due course.

Please register for the Examination [HERE](#).



