Center for MUSCLE AND JOINT Health

Rygsmerter –
er det tid til optimisme?

Jan Hartvigsen

Professor, Seniorforsker PhD

SDU | D·IAS

CHIROPRACTIC KNOWLEDGE HUB

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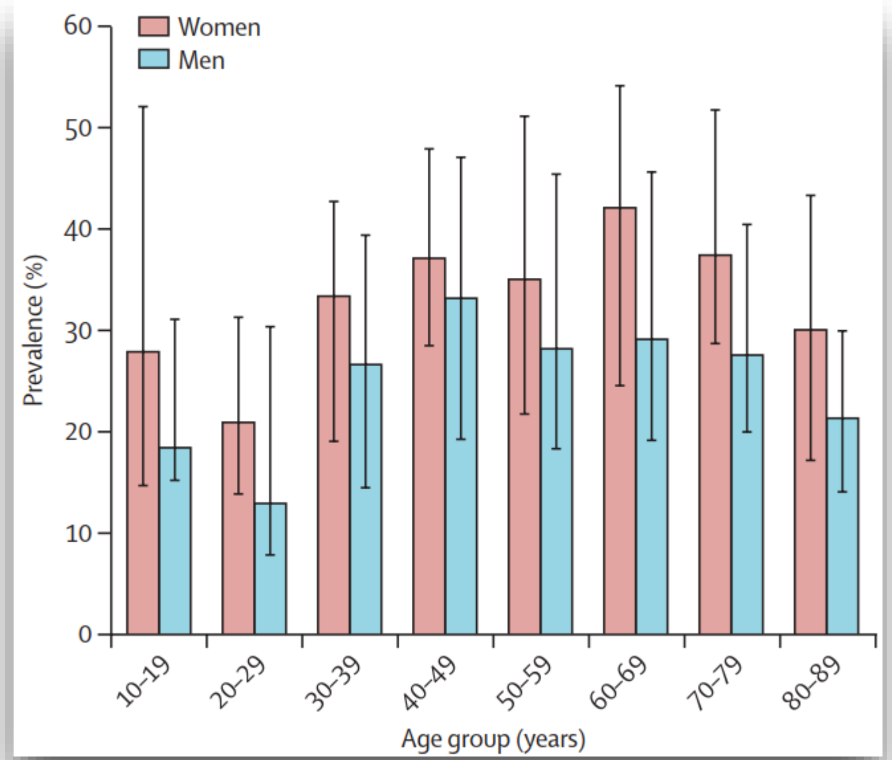
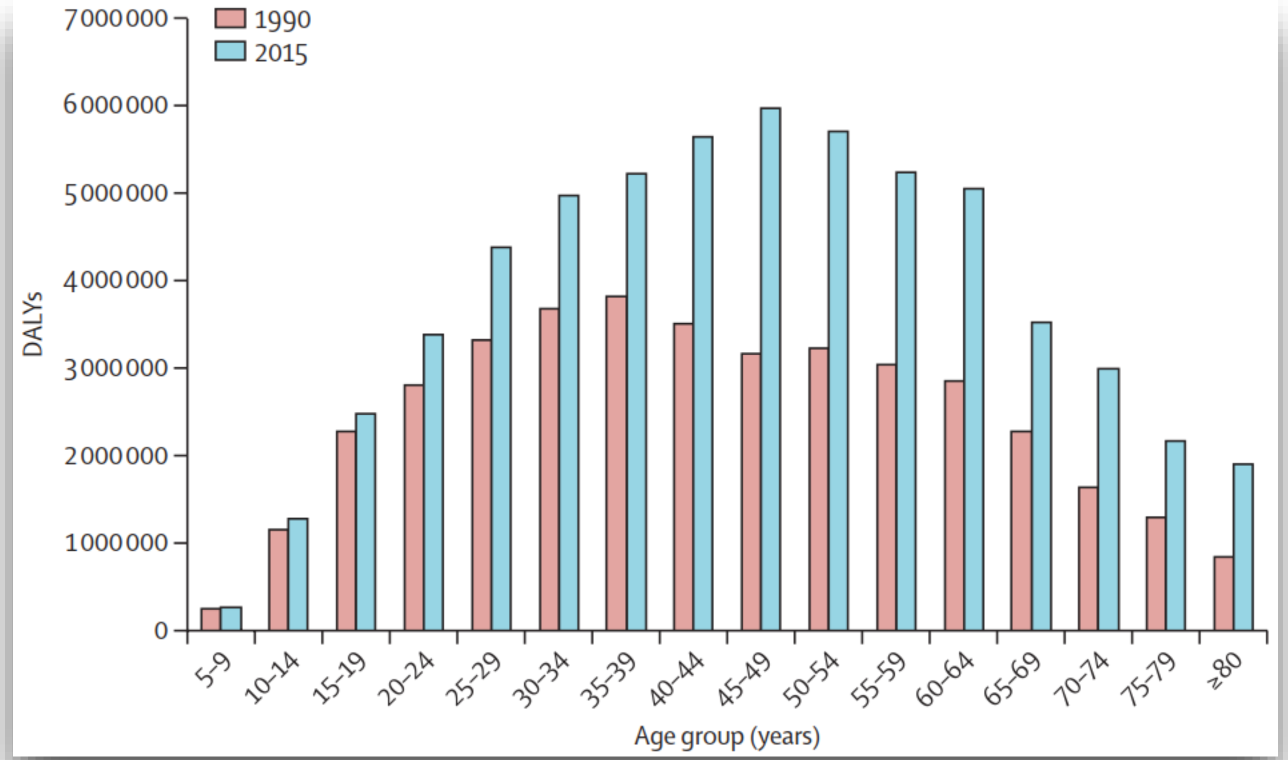
Problemet er værre, end vi troede, det var

Disability > 50% seneste 25 år



Prævalens



Disability

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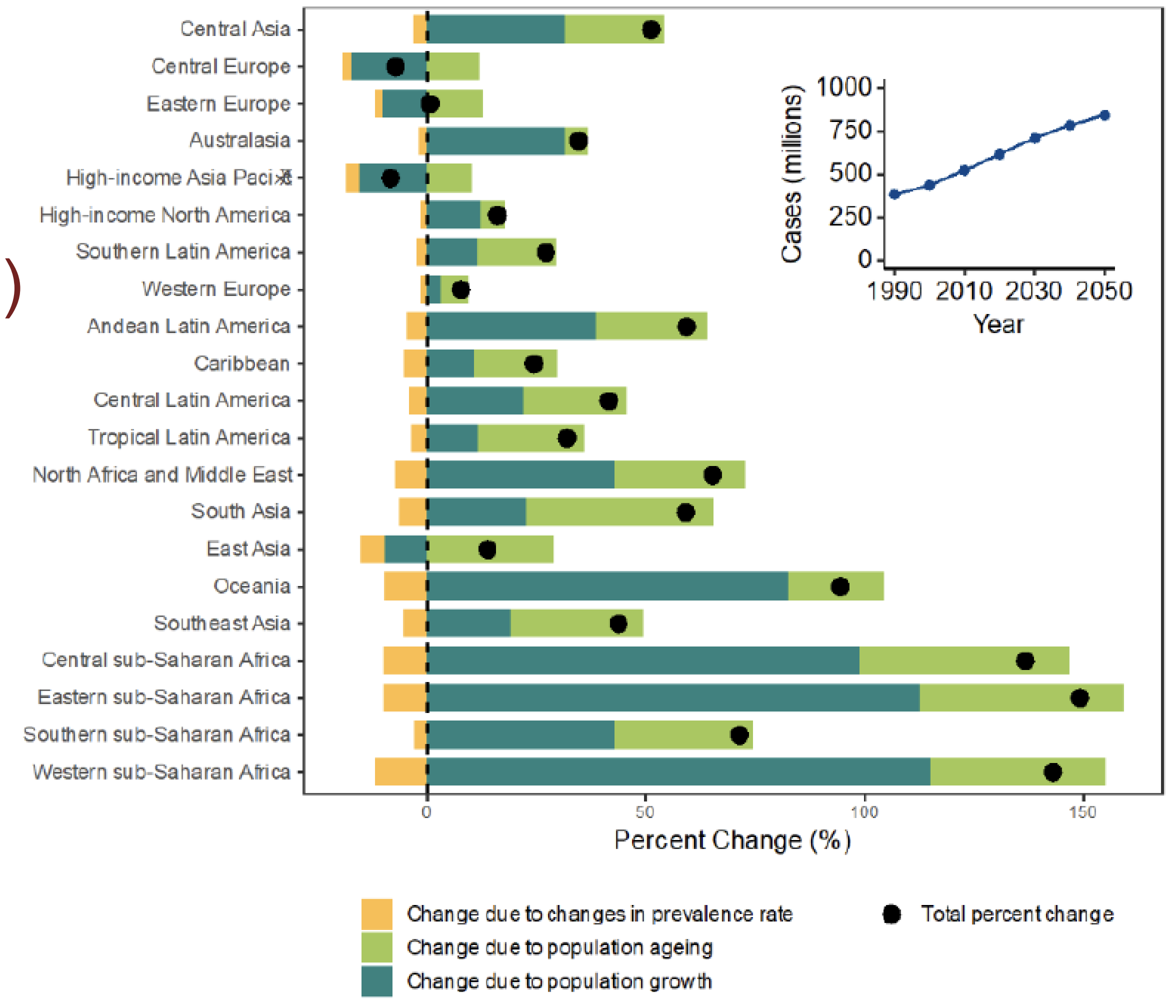
Hartvigsen Lancet 2018

Global, regional, and national burden of low back pain, 1990–2020, its attributable risk factors, and projections to 2050: a systematic analysis of the Global Burden of Disease Study 2021

- 36% højere prævalens i 2050 (800+ million)
- Flere teenagere og yngre med MSK
- Større ulighed i sundhed i lande og imellem lande



Ferreira Lancet Rheum 2023

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Global, regional, and national burden of low back pain, 1990–2020, its attributable risk factors, and projections to 2050: a systematic analysis of the Global Burden of Disease Study 2021

- 10% decrease in age-standardized rate YLD
- 10% decrease in YLD
- 39% af YLD forårsaget af arbejdsfaktorer, rygning og overvægt

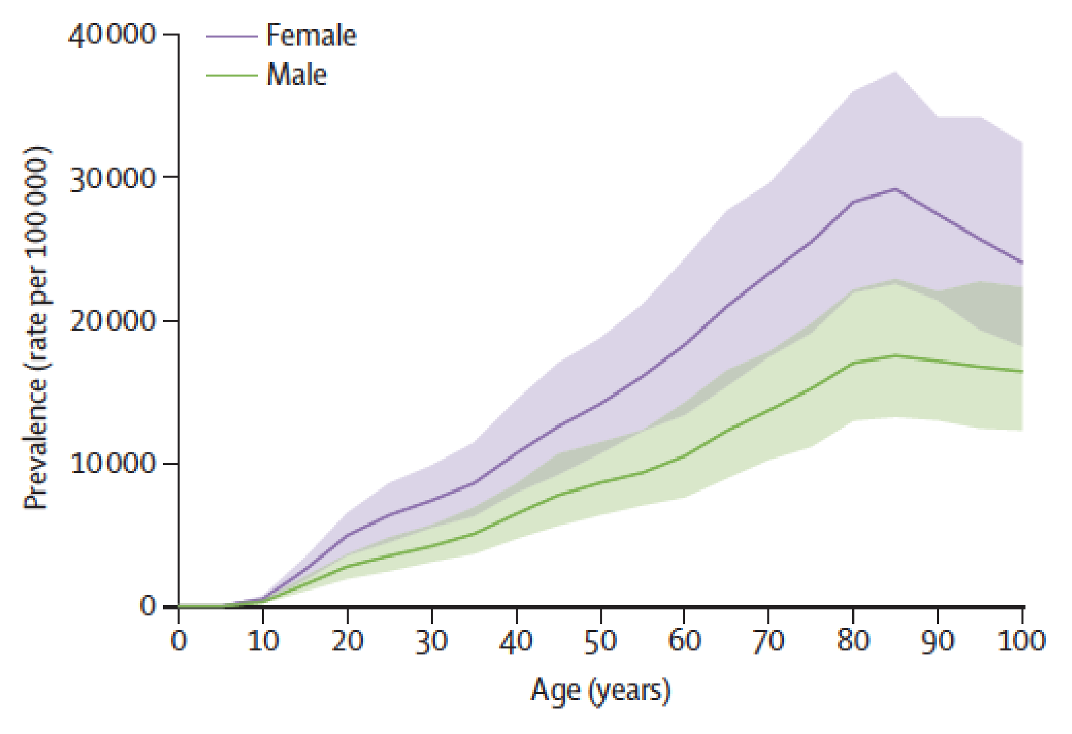
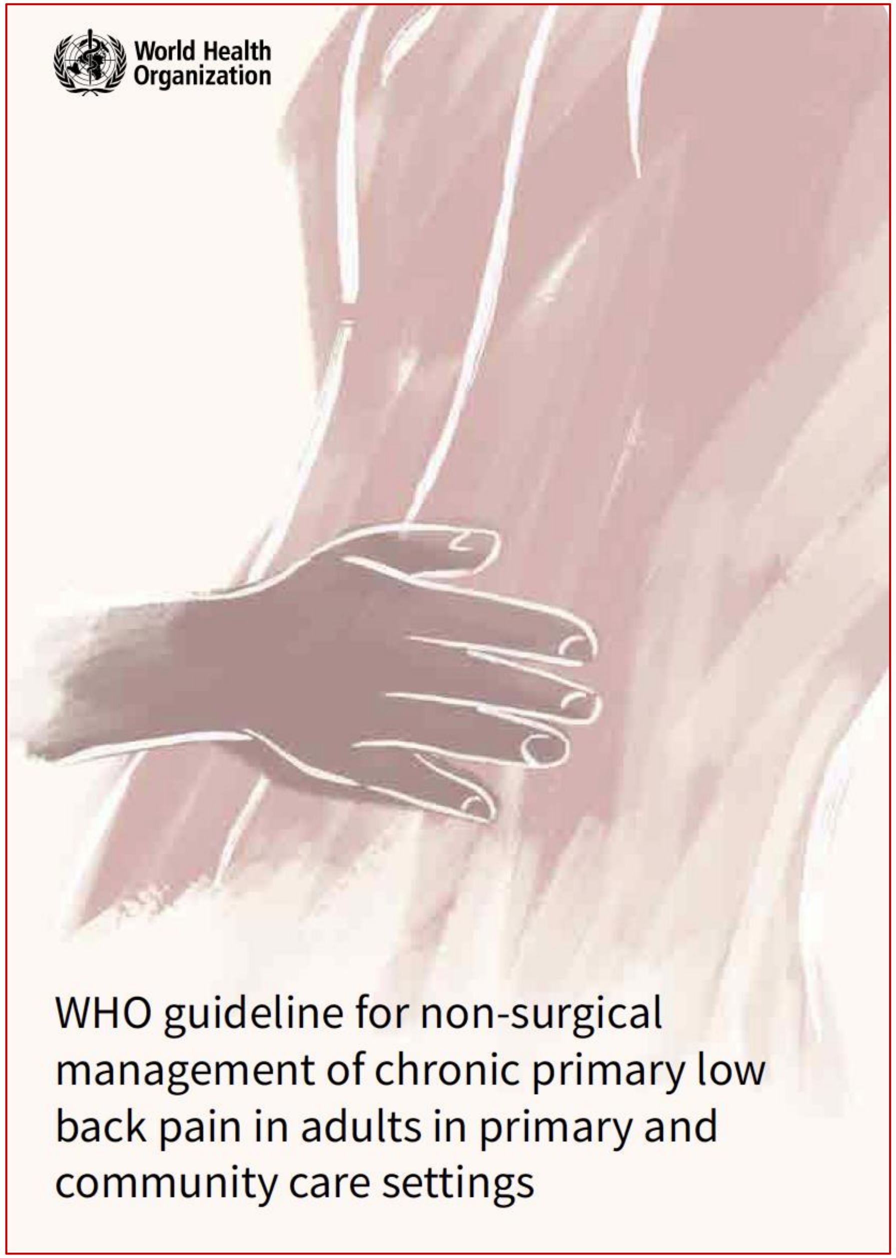


Figure 2: Global prevalence of low back pain by age and sex in 2020
Shaded areas represent 95% uncertainty intervals.

Ferreira Lancet Rheum 2023


World Health Organization
Low back pain
is the leading cause of disability globally.


World Health Organization
Here’s why low back pain should be a priority


World Health Organization
WHO guideline for non-surgical management of chronic primary low back pain in adults in primary and community care settings

Helsereform Danmark

Pakkeforløb for mennesker med kro-nisk sygdom

Sundhedsstyrelsen skal udarbejde pakkeforløb for mennesker med kronisk sygdom med inddragelse af regioner, kommuner, patientorganisationer og øvrige fagfolk.

Sundhedsstyrelsen skal udarbejde fem sygdomsspecifikke pakkeforløb, som indfases over en årrække:

- KOL (2027)
- kroniske lænderygsmerter (2027)
- type 2-diabetes (2028)
- hjertesygdom (2029) og
- kompleks multisygdom (2031).

Sundhedsreformen 2024

Tema Sundhedsreformen

Med en bred politisk aftale er der sat retning for den største reform af det danske sundhedsvæsen siden strukturreformen i 2004. Sundhedsreformen 2024 skal styrke kvaliteten af sundhedstilbud i hele landet, bringe sundhedstilbud tættere på borgerne og ruste sundhedsvæsenet til fremtidens behov.

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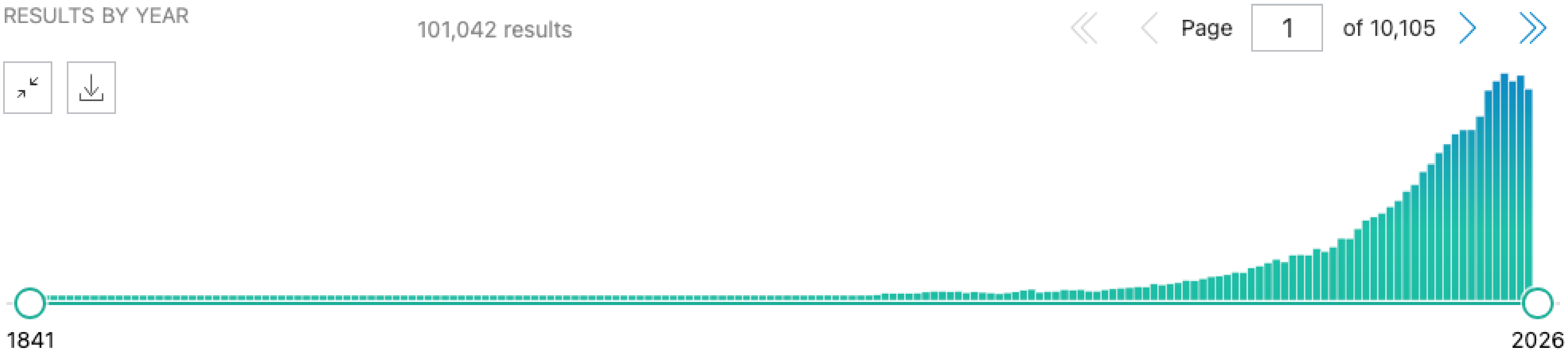
“Low back pain” OR “back pain”



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expertscape
Your first step to a Second Opinion

Pick Topic | Review Topic | List Experts | Examine Expert | Save Expert | Site Guide

Expertise in Back Pain:
Worldwide

Based on 21,478 eligible articles published since 2013

In each column, black bars show the relative amount of expertise for each place or person. Longer is better. For example, C G Maher equates to the top-rated expert in Back Pain in the world during the years 2013-2023.

Country Includes continents	Region Includes US states, etc.	City Includes metro areas	Institution Add your Visit us button • Details	Expert Add your Consult me button • Details
Worldwide	US Eastern Zone	Sydney	University of Sydney	Maher, C G
Europe	US Central Zone	New York area	Harvard University Boston C	Ferreira, M L
USA	England	New York City	Veterans Health System C	Koes, B
Asia	US Pacific Zone	Boston	Vrije Universiteit Amsterdam	Hancock, M J
Australia	US Mid-Atlantic	Washington	University of Southern Denmark	Cohen, S P
United Kingdom	New England	San Francisco Bay area	Johns Hopkins University	Kamper, S
Unspecified	California	London, EN	University of Washington	Buchbinder, R
Canada	New York	Melbourne	Monash University	O'Sullivan, Peter
China	Massachusetts	Chicago	University of Toronto C	Hartvigsen, J
Germany	Ontario	Perth	Massachusetts General Hospital	McAuley, J
Netherlands	US Federal Service	Amsterdam	Curtin University C	Deyo, R
Latin America	US Mountain Zone	US Dept of Veterans Affairs	Curtin University Perth	van Tulder, M W
Italy	Pennsylvania	Toronto	University of New South Wales	Chiarotto, A
Japan	Maryland	Baltimore	University of London C	Costa, L O P
Denmark	Illinois	Odense	University of Keele	Traeger, Adrian
Brazil	Texas	Seattle	Erasmus University Rotterdam	Ferreira, Paulo H
Switzerland	North Carolina	Seoul area	Erasmus Medical Center	Machado, Gustavo
France	Florida	Los Angeles area	Macquarie University	Chou, Roger
Spain	Washington	Brisbane	George Institute for Global Health	Moseley, G L
Korea	Ohio	Seoul	Duke University	Foster, N
Belgium	Quebec	Sao Paulo	NewYork-Presbyterian Hospitals C	Hodges, P
Sweden	Minnesota	Research Triangle	University of Queensland	Kent, P
Norway	Virginia	Philadelphia	Mayo Clinic Rochester	Underwood, M
Iran	Michigan	Zurich	Stanford University	O'Sullivan, Kieran
Turkey	Staffordshire	Rotterdam	University of Alberta	George, S Z
Ireland	Alberta	Stoke on Trent	Brigham and Women's Hospital	Cook, C E
Africa	Kentucky	Tokyo area	University of Zurich	Manchikanti, Laxmaiah
India	Utah	Montreal	University of Oxford	Cicuttini, F
Finland	Oregon	Milan area	University of California San Francisco	Pinheiro, M B
New Zealand	West Midlands	Los Angeles	Weill Medical College	van Dieën, J
Taiwan	District of Columbia	Tehran	New York University C	Ferreira, Giovanni
Poland	Arizona	San Francisco	Oregon Health Sciences University	Kongsted, A
Saudi Arabia	Missouri	Bethesda	University of Utah	O'Keeffe, Mary
Austria	Beijing Municipality	US Military	Rush University Medical Center	Urquhart, D
Portugal	Tennessee	Milan	University of Pittsburgh	Saragiotto, Bruno
Multinational BioPharma	Oxfordshire	Tokyo	McGill University	Hall, Amanda
Qatar	Shanghai Municipality	San Francisco Peninsula	Northwestern University	Hayden, J
Israel	New Jersey	Washington, DC	Neuroscience Research Australia	Fritz, Julie
Thailand	Guangdong Province	Paris area	Amsterdam Public Health	Côté, P
Greece	Lousiana	Paris	Karolinska Institute	Yamato, T P
Egypt	Wisconsin	Palo Alto	INSERM France C	Lin, C-W C #101
South Africa	Colorado	Rochester, MN	University of Newcastle Australia	Jarvik, J
Russia	Indiana	Oslo	Maastricht University	French, S
Singapore Republic	Hong Kong Special Administrative Region	Beijing	US Army C	Refshauge, K
Pakistan	Connecticut	Berlin	University of Oslo	Knezevic, Nebojsa N
Chile	Georgia	Adelaide	Nordic Institute of Chiropractic and Clinical Biomechanics	Wertli, M
Malaysia	Jiangsu Province	Edmonton	Charite-Universitatsmedizin C	Downie, Aron
Nigeria	Iowa	Miscellaneous cities in Australia	University of Limerick	Cashin, A
Hungary	British Columbia	Portland, OR	Miscellaneous institutions in Toronto C	Williams, Chris
Colombia	South Carolina	Oxford, EN	Beth Israel Deaconess	Karppinen, J
Caribbean islands	Hampshire	Rome, IT	University of South Australia	Falla, D
United Arab Emirates	Zhejiang Province	Pittsburgh	Vanderbilt University	Eldabe, S
Nepal	Scotland	Salt Lake City	Cleveland Clinic	Belavý, D
Mexico	Tyne and Wear	Shanghai	Pain Management Centers of America - Paducah	Nijs, J
Croatia	New Hampshire	Stockholm	University of Michigan	Lee, Hopin #101
Ethiopia	Kansas	Miscellaneous cities in United Kingdom	UCLA	Danneels, L
Argentina	Nova Scotia	Houston	Universidade Cidade de Sao Paulo	McLachlan, A
Czech Republic	Sichuan Province	Cleveland	US Joint Military C	Ostelo, R W J G
Jordan	North Yorkshire	Brussels	Radboud University	Hübscher, M
Slovenia	Shandong Province	Madrid	University of Louisville	Deer, Tim
Romania	Nottinghamshire	Hong Kong	University of Wisconsin	Mansell, G
Lebanon	West Virginia	Maastricht-Heerlen	Ghent University	Friedly, Janna
Tunisia	Hubei Province	Newcastle, AU	King's College London C	Dunn, K
Serbia	Rhode Island	Copenhagen	McMaster University	Kawchuk, G
Morocco	Shaanxi Province	Miscellaneous cities in Germany	Louisiana State University New Orleans	Rushton, A
Bangladesh	Hebei Province	Munich	University of California San Diego	Suri, P

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HORIZON-HLTH-2025-01-DISEASE-07

Tackling high-burden for patients and under-researched medical conditions

Type d'action : HORIZON Research and Innovation Actions
Date d'ouverture : 22 mai 2025
Date de clôture 1 : 16 septembre 2025 02:00

Call : Cluster 1 - Health (Single stage - 2025)
Call Identifier : HORIZON-HLTH-2025-01

Détail du topic
Budget : €30 000 000
Description :

Expected Outcome:

This topic aims at supporting activities that are enabling or contributing to one or several expected impacts of destination "Tackling diseases and reducing disease burden". To that end, proposals under this topic should aim to deliver results that are directed, tailored towards and contributing to most of the following expected outcomes:

- The scientific and clinical communities make effective use of state-of-the-art information, data, technologies, tools and best practices to better understand the condition, underpinning the development of diagnostics, therapeutics and/or preventive strategies.
- The scientific and clinical community exchange data, knowledge and best practices, thereby strengthening their collaboration and building knowledge and care networks in Europe and beyond.
- The scientific and clinical community make wide use of newly established and where relevant open access databases and/or integrate them with existing infrastructures for storage and sharing of collected data according to FAIR[1] principles, thereby encouraging further use of the data.
- Policymakers and funders are informed of the research advances made and consider further support in light of the sustainability of the studies.
- Patients and caregivers are constructively engaged with the research, which also caters for their needs.
- Health professionals have access to and use improved clinical guidelines on diagnosis and/or treatment of the condition.

Scope:

A number of medical conditions fail to be recognised and/or be correctly diagnosed in a significant proportion of patients. As a consequence, they are inadequately treated and often can become a chronic and high burden for the patient. These medical conditions[2], including:

1. myalgic encephalomyelitis/chronic fatigue syndrome,
2. autism,
3. gynaecological diseases,
4. low back pain,
5. other[3],

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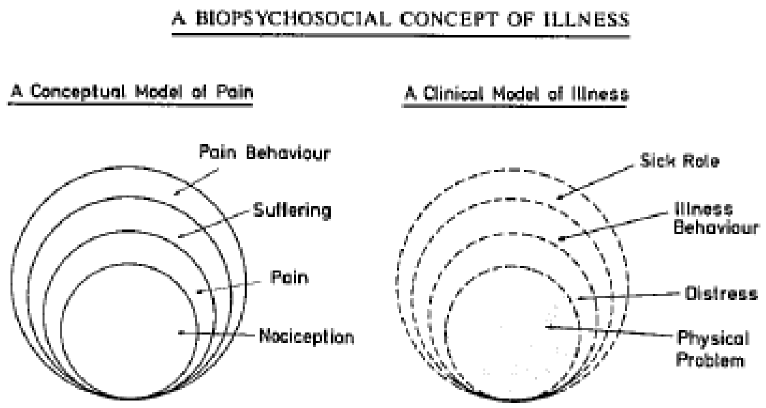
When the facts change, I change my mind. What do you do, sir?

- John Maynard Keynes -

1987 Volvo Award in Clinical Sciences

A New Clinical Model for the Treatment of Low-Back Pain

GORDON WADDELL, BSc, MD, FRCS



Spine
SPINE Volume 38, Number 24, pp 2118-2123
©2013, Lippincott Williams & Wilkins
HEALTH SERVICES RESEARCH

Twenty-Five Years With the Biopsychosocial Model of Low Back Pain—Is It Time to Celebrate?

A Report From the Twelfth International Forum for Primary Care Research on Low Back Pain

Tamar Pincus, PhD,* Peter Kent, PhD,† Gert Bronfort, PhD,‡§ Patrick Loisel, PhD,¶||
Glenn Pransky, MD, MoccH,**††‡‡ and Jan Hartvigsen, PhD§§§

The utility of the biopsychosocial framework cannot be fully assessed until we truly adopt and apply it in research and clinical practice

Toye *et al. BMC Medical Research Methodology* (2017) 17:116
DOI 10.1186/s12874-017-0392-7

BMC Medical Research Methodology

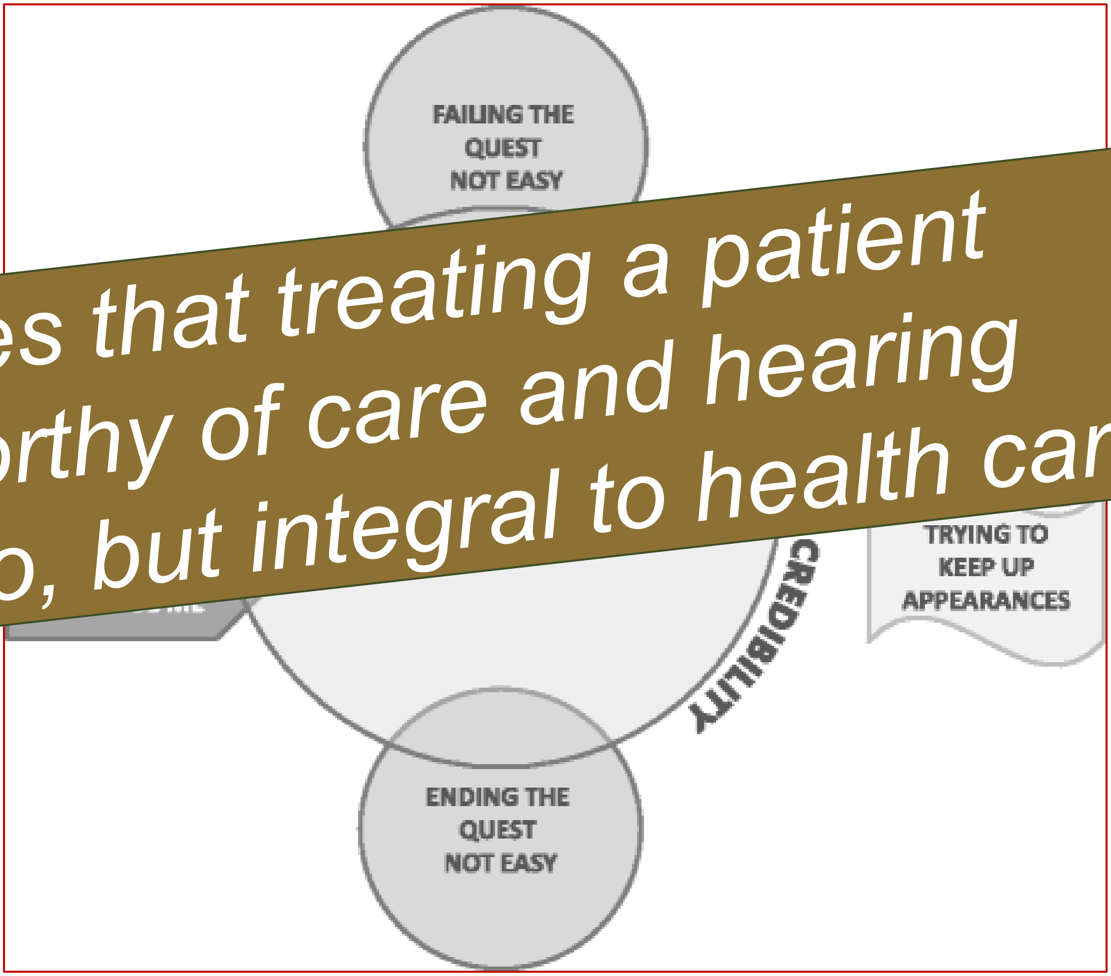
RESEARCH ARTICLE Open Access

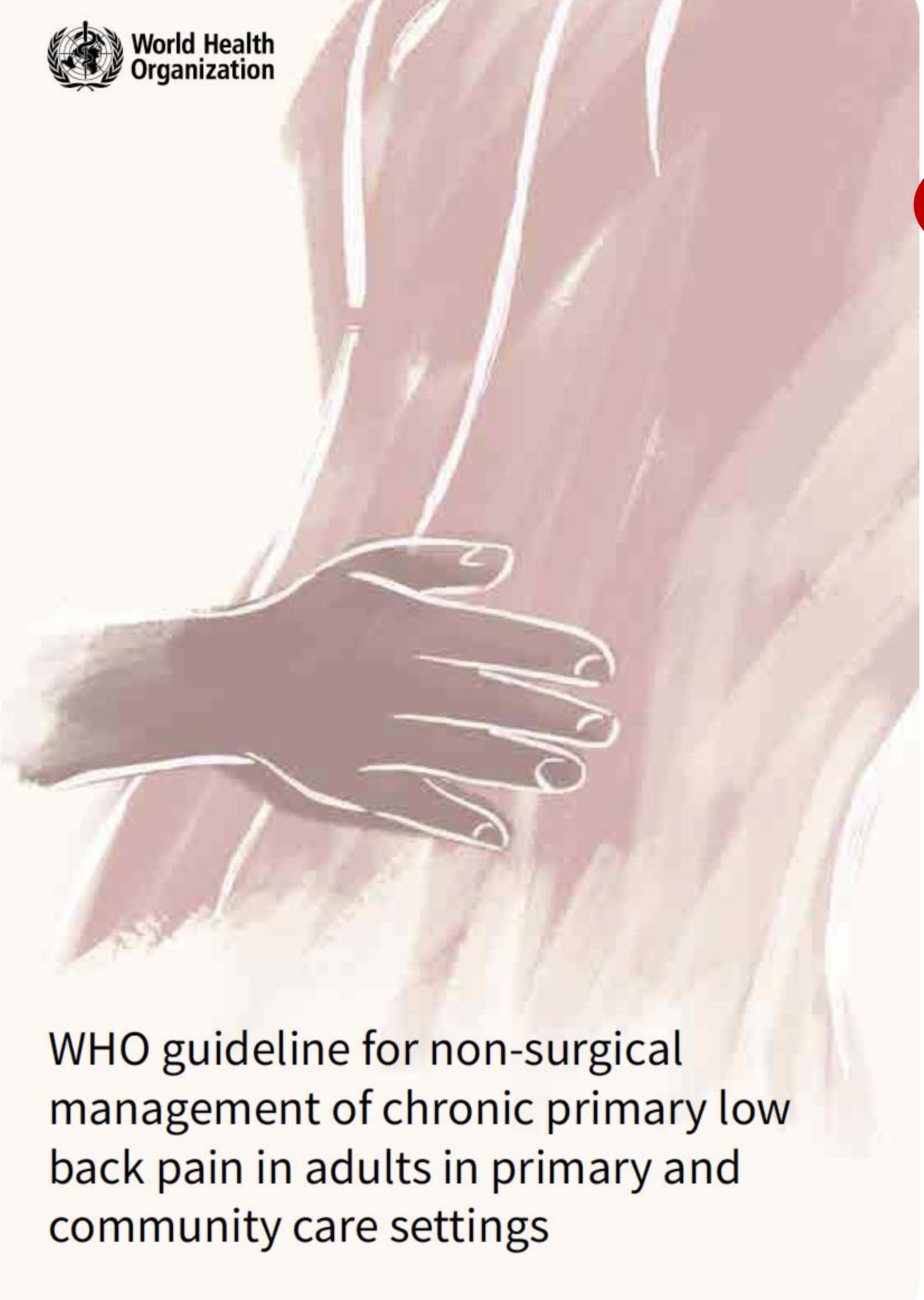
A mega-ethnography of eleven qualitative evidence syntheses exploring the experience of living with chroni…

“This knowledge demonstrates that treating a patient with a sense that they are worthy of care and hearing their story is not an adjunct to, but integral to health care”

… deltagere

- Meta-etnografisk syntese på tværs af reviews



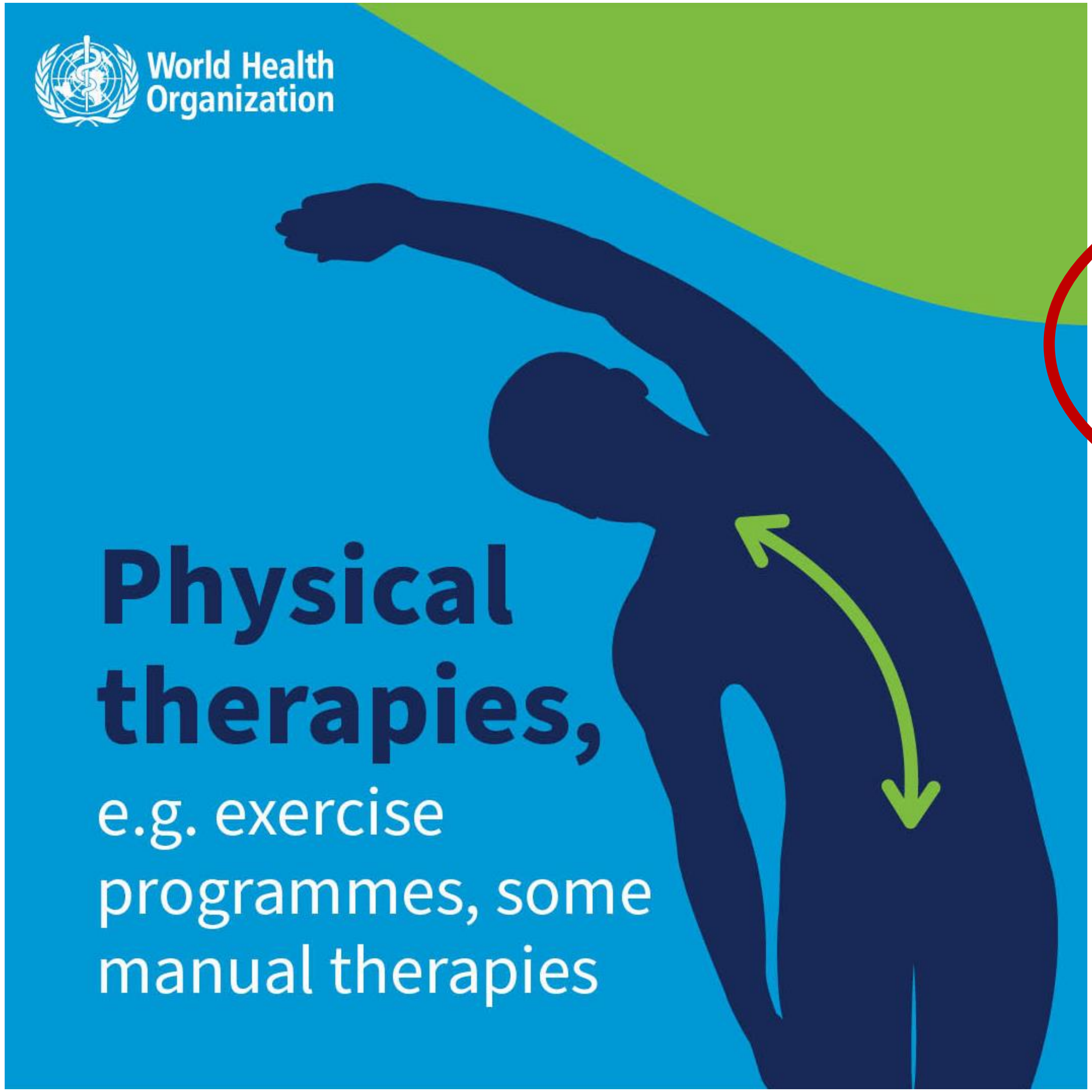


SD

Intervention class	In most contexts, these interventions may be offered as part of care	These interventions should **not** be used as part of routine care
A. Education	Structured and standardized education and/or advice [c]	
B. Physical interventions	Structured exercise therapies or programmes [b] Needling therapies [b] Spinal manipulative therapy [c] Massage [c] Mobility assistive products [d]	Traction [c] Therapeutic ultrasound [b] Transcutaneous electrical nerve stimulation (TENS) [c] Lumbar braces, belts and/or supports [c]
C. Psychological interventions	Operant therapy [c] Cognitive behavioural therapy [c]	
D. Medicines	Non-steroidal anti-inflammatory drugs (NSAIDS) [a] Topical Cayenne pepper (*Capsicum frutescens*) [b]	Opioid analgesics [a] Serotonin and noradrenaline reuptake inhibitor (SNRI) antidepressants [b] Tricyclic antidepressants [c] Anticonvulsants [c] Skeletal muscle relaxants [c] Glucocorticoids [c] Injectable local anaesthetics [c] Devil's claw (*Harpagophytum procumbens*) [c] White willow (*Salix spp.*) [b]
E. Multicomponent interventions	Multicomponent biopsychosocial care [b]	Pharmacological weight loss [c]

Patientuddannelse

- Forstå smerteoplevelsen og støtte egenhåndtering
- Struktureret og leveret af sundhedsprofessionel
- **Forskellig fra den information og rådgivning der sker i rutinekonsultationer**



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CHIROPRACTIC KNOWLEDGE HUB

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Fokus på

- Udforske bevægelse
- Ikke “gøre det rigtigt”
- Smerte ved træning OK
- Reducere frygt for bevægelse
- Progression mest bestemt af patienten

- Positive forventninger
- Integrer patientuddannelse
- Hvad er det, du vil opnå?
- Eksposure with control
- Positiv atmosfære, bevægelse er godt

[LITERATURE REVIEW]

Check for updates

CASPER NIM, PhD[1,2,3] • SASHA L. ASPINALL, PhD[4] • CHAD E. COOK, PhD[5,6,7] • LETICIA A. CORRÊA, DSc[8]
MEGAN DONALDSON, PhD[9] • ARON S. DOWNIE, PhD[8] • STEEN HARSTED, PhD[1,3] • SIMONE HANSEN, MSc[10]
HAZEL J. JENKINS, PhD[8] • DAVID MCNAUGHTON, PhD[11] • LUANA NYIRÖ, DCM[12] • STEPHEN M. PERLE, DC[4,13]
ERIC J. ROSEEN, PhD[14] • JAMES J. YOUNG, PhD[3,15] • ANIKA YOUNG, MRes[8] • GONG-HE ZHAO, PhD[3,16]
JAN HARTVIGSEN, PhD[3,17a] • CARSTEN B. JUHL, PhD[3,18a]

The Effectiveness of Spinal Manipulative Therapy in Treating Spinal Pain Does Not Depend on the Application Procedures: A Systematic Review and Network Meta-analysis

- ➢ 161 RCTs; 11,849 deltagere
- ➢ De fleste SMT procedurer var lige så effektive eller lidt mere effektive end andre anbefalede behandlinger
- ➢ Ingen klinisk relevant forskel mellem SMT procedurer
- ➢ En mere generel tilgang til SMT har størst sandsynlighed for god effekt

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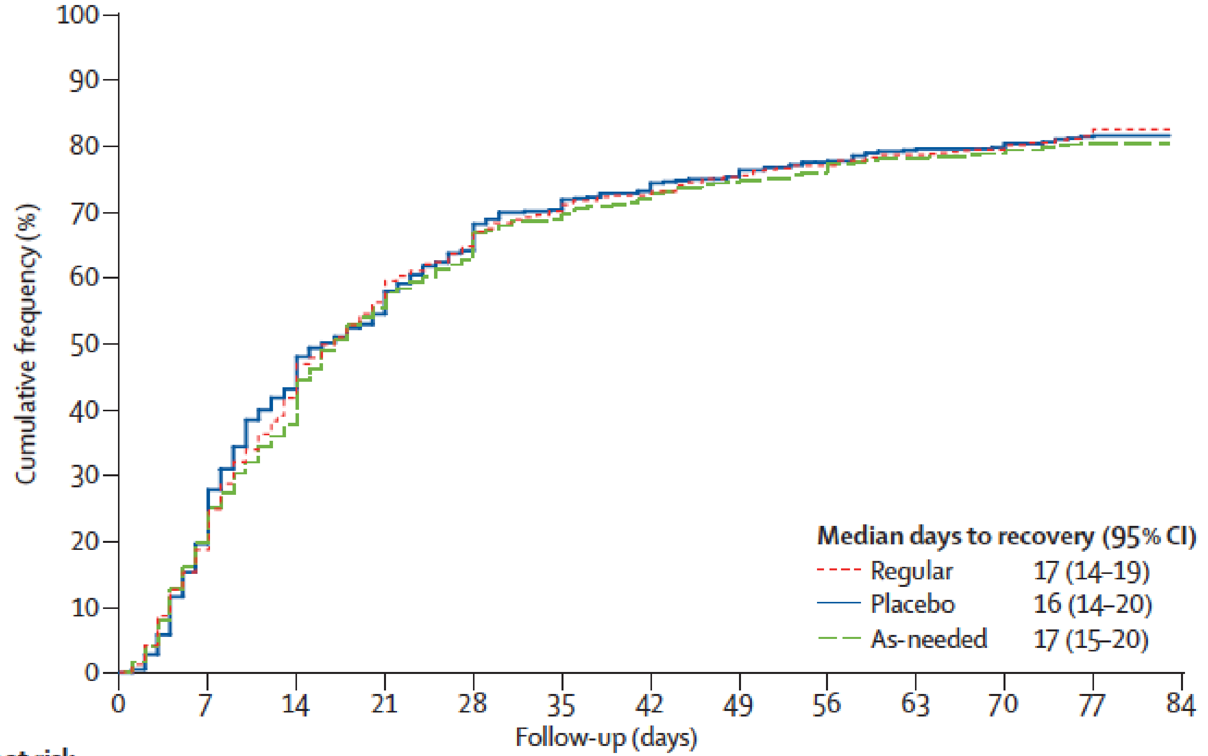
Efficacy of paracetamol for acute low-back pain: a double-blind, randomised controlled trial

Lancet 2023

Christopher M Williams, Christopher G Maher, Jane Latimer, Andrew J McLachlan, Mark J Hancock, Richard O Day, Chung-Wei Christine Lin



Number at risk

Regular	550	434	305	226	181	152	140	124	113	106	100	90	0
Placebo	547	430	301	236	184	152	137	123	110	100	97	88	0
As-needed	546	427	328	233	189	153	138	125	117	107	103	96	0

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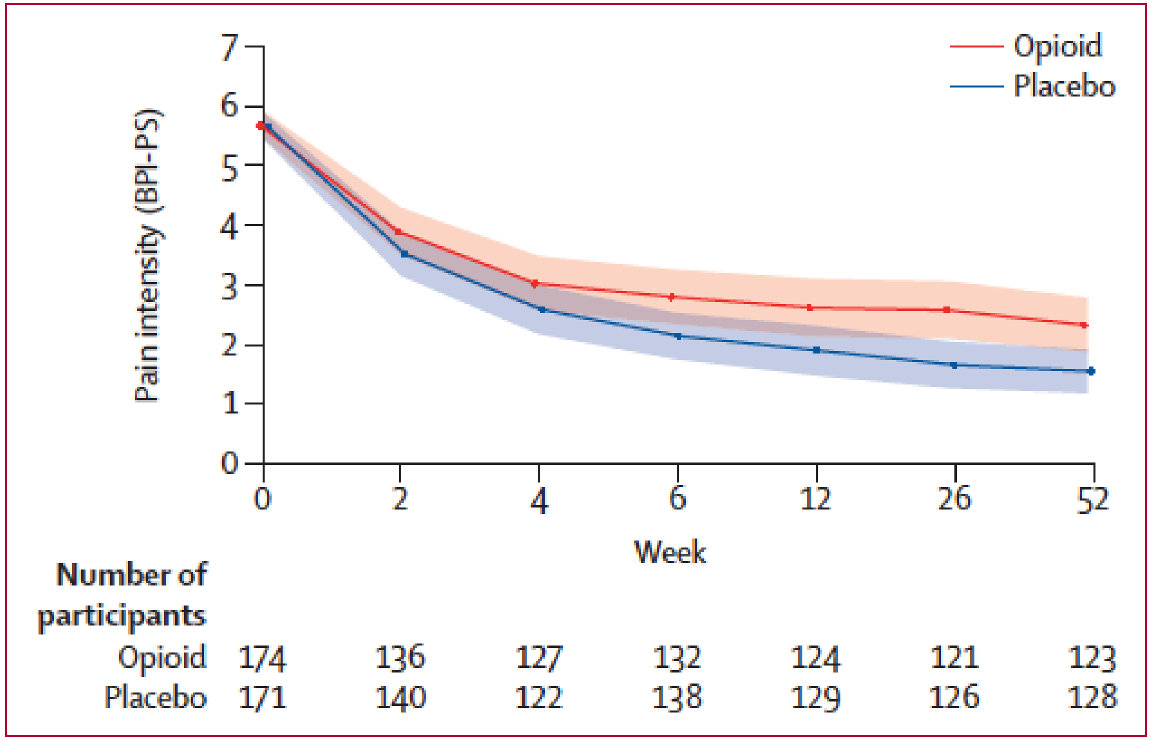
Lancet 2023

Opioid analgesia for acute low back pain and neck pain (the OPAL trial): a randomised placebo-controlled trial

Caitlin M P Jones, Richard O Day, Bart W Koes, Jane Latimer, Chris G Maher, Andrew J McLachlan, Laurent Billot, Sana Shan, Chung-Wei Christine Lin, on behalf of the OPAL Investigators and Coordinators*



Our findings also go further to say that not only are opioids not going to benefit individuals with back and neck pain, but they might also cause worse outcomes even after short-term judicious use

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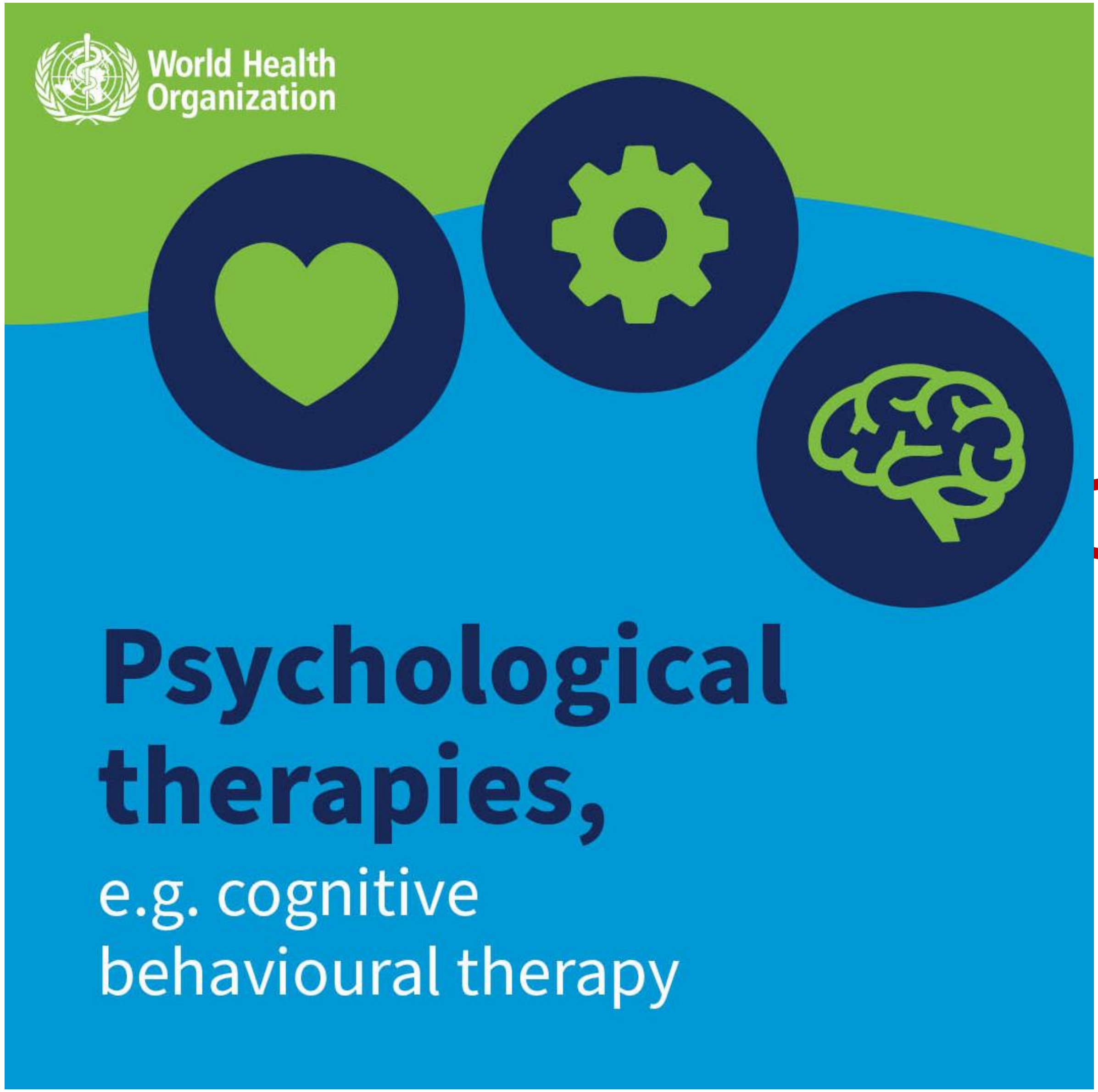
*Alle anbefalinger er svage anbefalinger imod brugen af lægemidlerne, **hvilket betyder, at de fleste voksne med akutte lænderygsmerter ikke bør tilbydes medicinsk behandling**, men der vil være tilfælde, hvor patienten vil have gavn af det*

Sundhedsstyrelsen 2025



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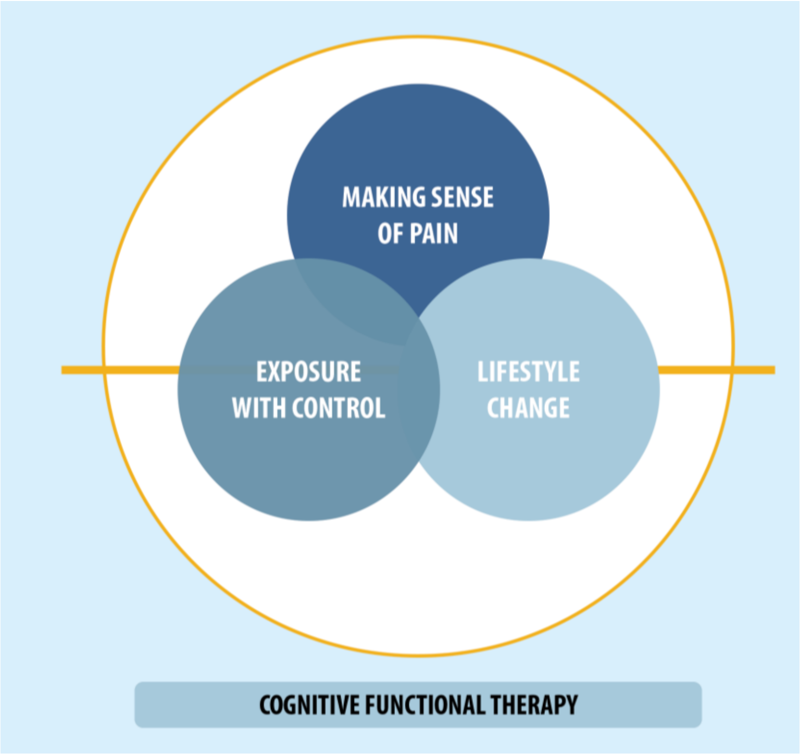
THE LANCET May 2023

Cognitive functional therapy with or without movement sensor biofeedback versus usual care for chronic, disabling low back pain (RESTORE): a randomised, controlled, three-arm, parallel group, phase 3, clinical trial

Peter Kent, Terry Haines, Peter O'Sullivan, Anne Smith, Amity Campbell, Robert Schutze, Stephanie Attwell, J P Caneiro, Robert Laird, Kieran O'Sullivan, Alison McGregor, Jan Hartvigsen, Den-Ching A Lee, Alistair Vickery, Mark Hancock on behalf of the RESTORE trial team*



Flexibel ramme hvor klinikeren overvejer Modificerbare og ikke-modificerbare faktorer, der bidrager til en patients individuelle oplevelse af rygsmerter

Tillader klinikeren at udforske dimensioner af smerteoplevelsen fra patientens perspektiv

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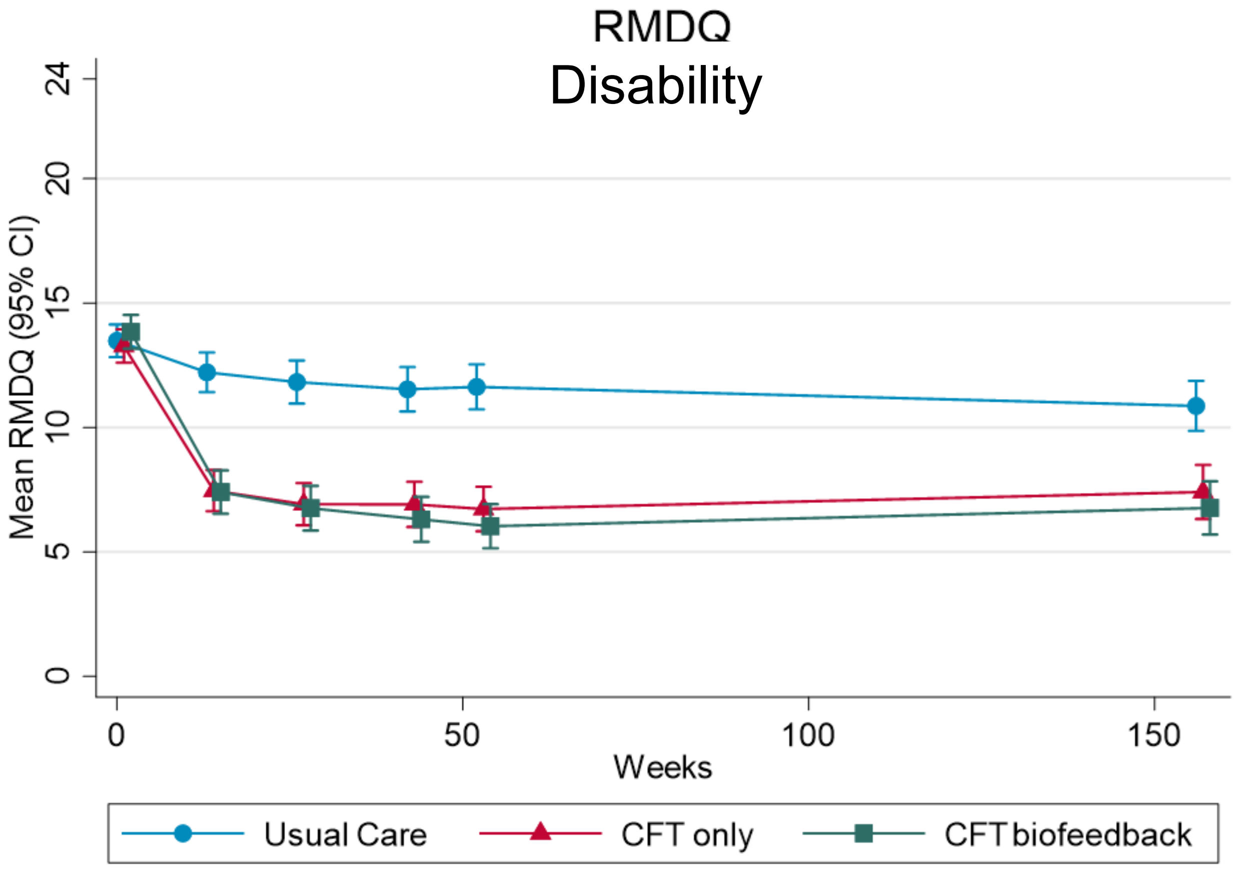

SDU

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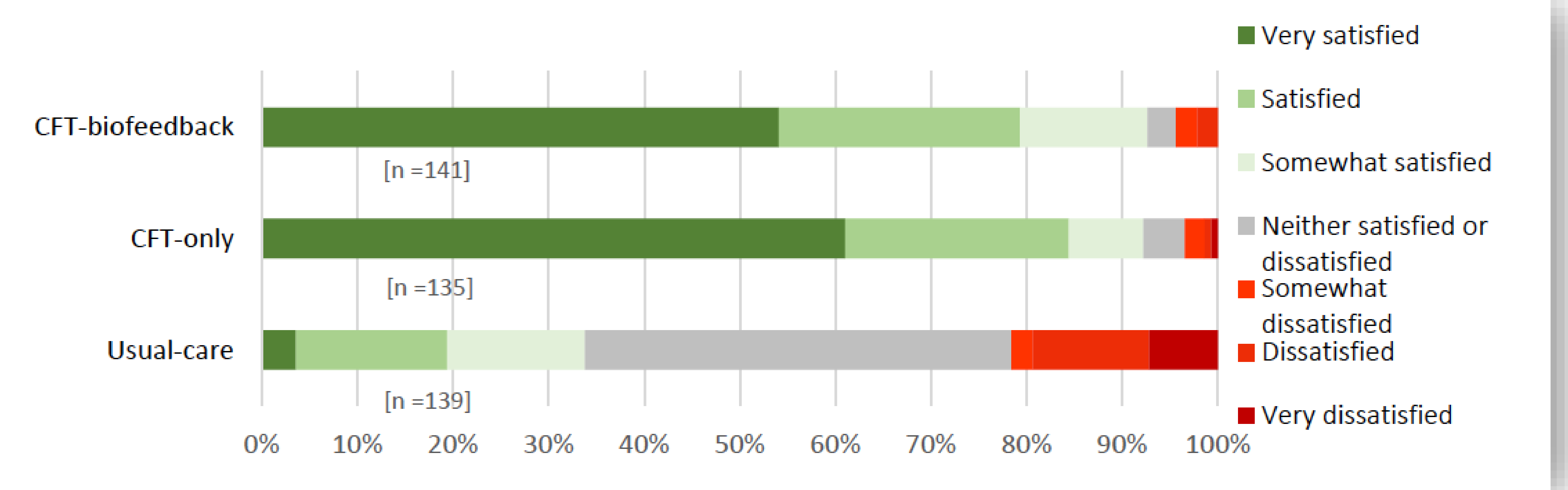
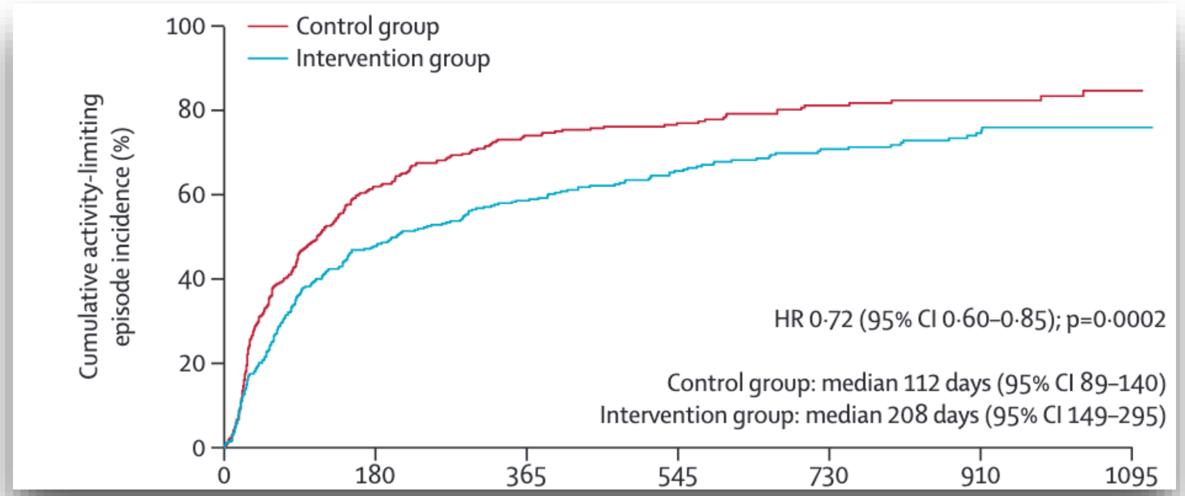
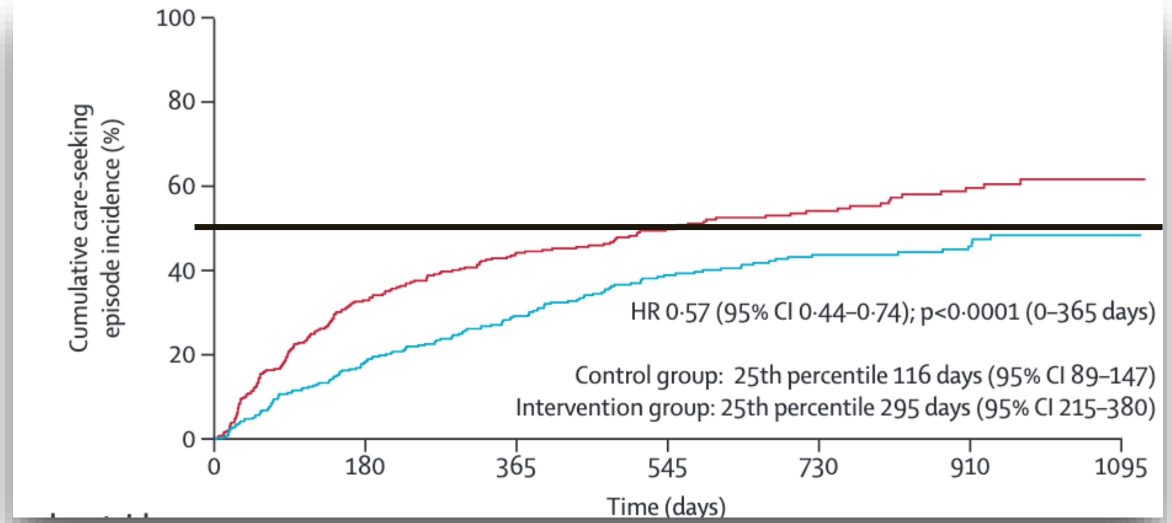


THE LANCET 2024

Effectiveness and cost-effectiveness of an individualised, progressive walking and education intervention for the prevention of low back pain recurrence in Australia (WalkBack): a randomised controlled trial

Natasha C Pocovi, Chung-Wei Christine Lin, Simon D French, Petra L Graham, Johanna M van Dongen, Jane Latimer, Dafna Merom, Anne Tiedemann, Christopher G Maher, Ornella Clavisi, Shuk Yin Kate Tong, Mark J Hancock





- 701 deltagere lige efter behandling
- Progredierende gåture og uddannelse faciliteret i 6 sessioner over 6 mdr versus ingen behandling

- Forskning inden for LBP og MSK stiger kraftigt i disse år
- Rygsmerter er på folkehelse agendaen
- Rygsmerter bliver prioriteret i helsevæsenet
- Forskning af høj kvalitet ændrer på behandlingsanbefalinger
- Forskning bidrager til mere individual tilgang i anbefalede behandlinger
- Vi begynder at se konturerne af (effektiv?) forebyggelse

SDU

Thank you!

Center for MUSCLE AND JOINT Health

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CHIROPRACTIC KNOWLEDGE HUB

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