Goal Setting and Persistent Pain:
Is It the Destination or The Journey?

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Evidence In Motion

About the Speaker:

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- Pediatric and Adult Occupational Therapist
- Therapeutic Pain Specialist, Fellow of Pain Science
- Faculty Experience Team/EIM- Pain Sciences, Integrative Behavioral Health Certificate Program, Lifestyle Medicine Certification Program, Hand Certification Program, and Pelvic Health.
- Assistant Program Director- Post Professional OTD Program Southern California University

Learner Objectives

- ✓ Define collaborative goal setting within the context of patient-centered care.
- ✓ Identify stages of goal setting
- ✓ Describe common pitfalls in the goal-setting process.
- ✓ Identify how to integrate the goal-setting process into all aspects of care from evaluation to discharge planning.
- ✓ List 3 ways to engage a client in the goal setting process

The Problem Of Goal Setting In Persistent Pain States

Pain is ubiquitous and complex.

Frustrates both clinicians and patients

Not detailed in most guidelines:

- How to implement collaborative goal setting, especially in complex clinical scenarios
- How to recognize barriers to the process of setting and achieving goals

Why Does it Matter?

Goal setting is a complicated process that is predicated on our ability to:

- ✓ Develop strong therapeutic connections
- ✓ Effectively communicate
- ✓ See the world through the patient's lens
- ✓ Be empathetic
- ✓ Engage in shared decision making

Values that Impact SDM

- Shared Decision Making (SDM)
  - The process by which healthcare providers involve patients actively as collaborators in decision making, incorporating both medical evidence and individual patient priorities and preferences.

Armstrong, M.J. and Mullins, C.D., 2017. Value assessment at the point of care: incorporating patient values throughout care delivery and a draft taxonomy of patient values. Value in Health, 20(2), pp.292-295.,

Taxonomy of Values

Global

- Overarching priorities and beliefs within AND outside the realm of healthcare
- May reflect religious or cultural priorities

Decisional

- Relate directly to the decision being made
- At the core of SDM
- Can be modified by external or situational values

Situational

- Tied to a specific context
- Represent something specific and possibly transient about the individual, environment, or time

External

- Consideration of others values and beliefs alongside your own.
- Family values, cultural expectations

Armstrong, M.J. and Mullins, C.D., 2017. Value assessment at the point of care: incorporating patient values throughout care delivery and a draft taxonomy of patient values. Value in Health, 20(2), pp.292-295.,

Goal Setting Principles

Locke and Latham (2002)

Clarity: SMART goals as an example

Challenge: Challenging goals are better than easier

Commitment: Most important when goals are difficult, need to buy-into the goal and process, mental contrasting, mapping

Feedback: Progress toward goal, mini-targets

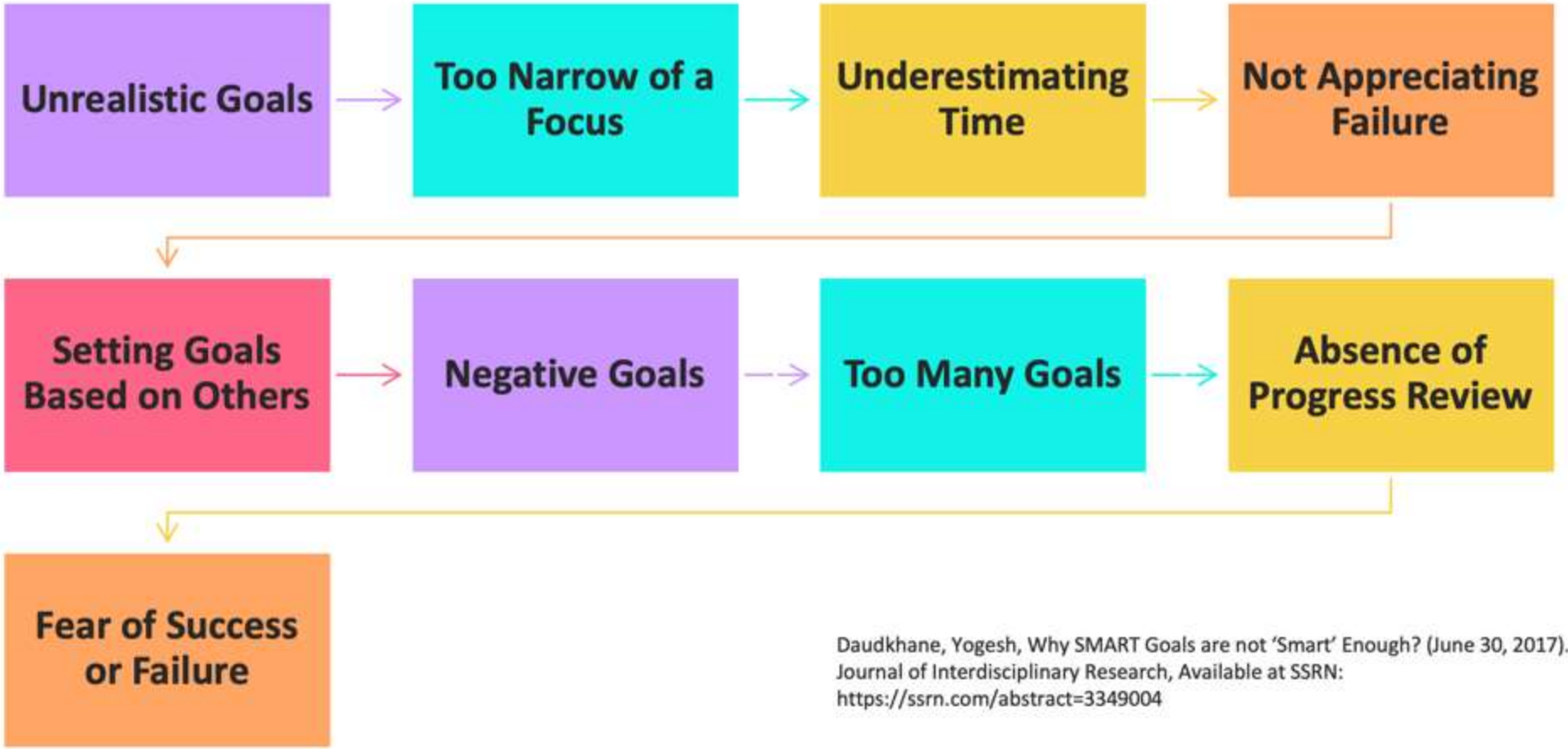
Task complexity: Appropriate, might break into manageable units

Goals Must....

- ✓ Serve a directive function
- ✓ Have an energizing function
- ✓ Affect persistence
- ✓ Inspire action

Locke EA, Latham GP 2002 Building a Practically Useful Theory of Goal Setting and Task Motivation: A 35-Year Odyssey American Psychologist 57(9): 705–717.

Goal Setting Pitfalls



Daudkhane, Yogesh, Why SMART Goals are not 'Smart' Enough? (June 30, 2017). Imperial Journal of Interdisciplinary Research, Available at SSRN: https://ssrn.com/abstract=3349004

EIM Evidence In Motion

Patient-centered Or Clinician Centered?

- Patient goals are often varied, and may not relate to either clinician goals or selected outcome measures
- Given potential biopsychosocial barriers to goal setting, should not assume that patients understand the concept of setting, pursuing or attaining goals as a key component of the treatment plan

Gardner T, Refshauge K, McAuley J, et al. 2015 Patient led goal setting in chronic low back pain—What goals are important to the patient and are they aligned to what we measure? Patient Education and Counseling 98:1035–1038.

Gardner T, Refshauge K, McAuley J, et al. 2018 Goal setting practice in chronic low back pain. What is current practice and is it affected by beliefs and attitudes? Physiother Theory Pract. Jan 18:1-11.
Schmidt SG. Recognizing potential barriers to setting and achieving effective rehabilitation goals for patients with persistent pain. Physiotherapy Theory and Practice. Jul 2016;32(5):415-426.

Patient-centered or Clinician Centered?

- Goal-setting is not a straightforward process
- Open-ended questions asking patients to state their goals do not consider that patients may not know what an achievable goal might be
- More likely to be clinician led (or semi-collaborative) vs a patient led process

Gardner T, Refshauge K, McAuley J, et al. 2018 Goal setting practice in chronic low back pain. What is current practice and is it affected by beliefs and attitudes? Physiother Theory Pract. Jan 18:1-11.

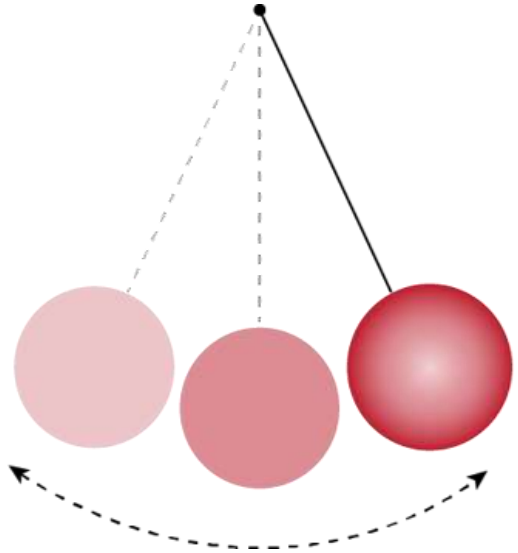
Schoeb V, Staffoni L, Parry R, Pilnick A. 2014 "What do you expect from physiotherapy?": a detailed analysis of goal setting in physiotherapy. Disabil Rehabil. 36(20):1679-86.

Treatment Approaches

Lagueux, É., Masse, J., Pagé, R., Marin, B. and Tousignant-Laflamme, Y., 2023. Management of chronic pain by occupational therapist: a description of practice profile. *Canadian Journal of Occupational Therapy*, *90*(4), pp.384-394.

TOP

Global Perspective
Participation Focused



Task-specific Perspective
Body Function Focused

BOTTOM

Biomedical

Biopsychosocial

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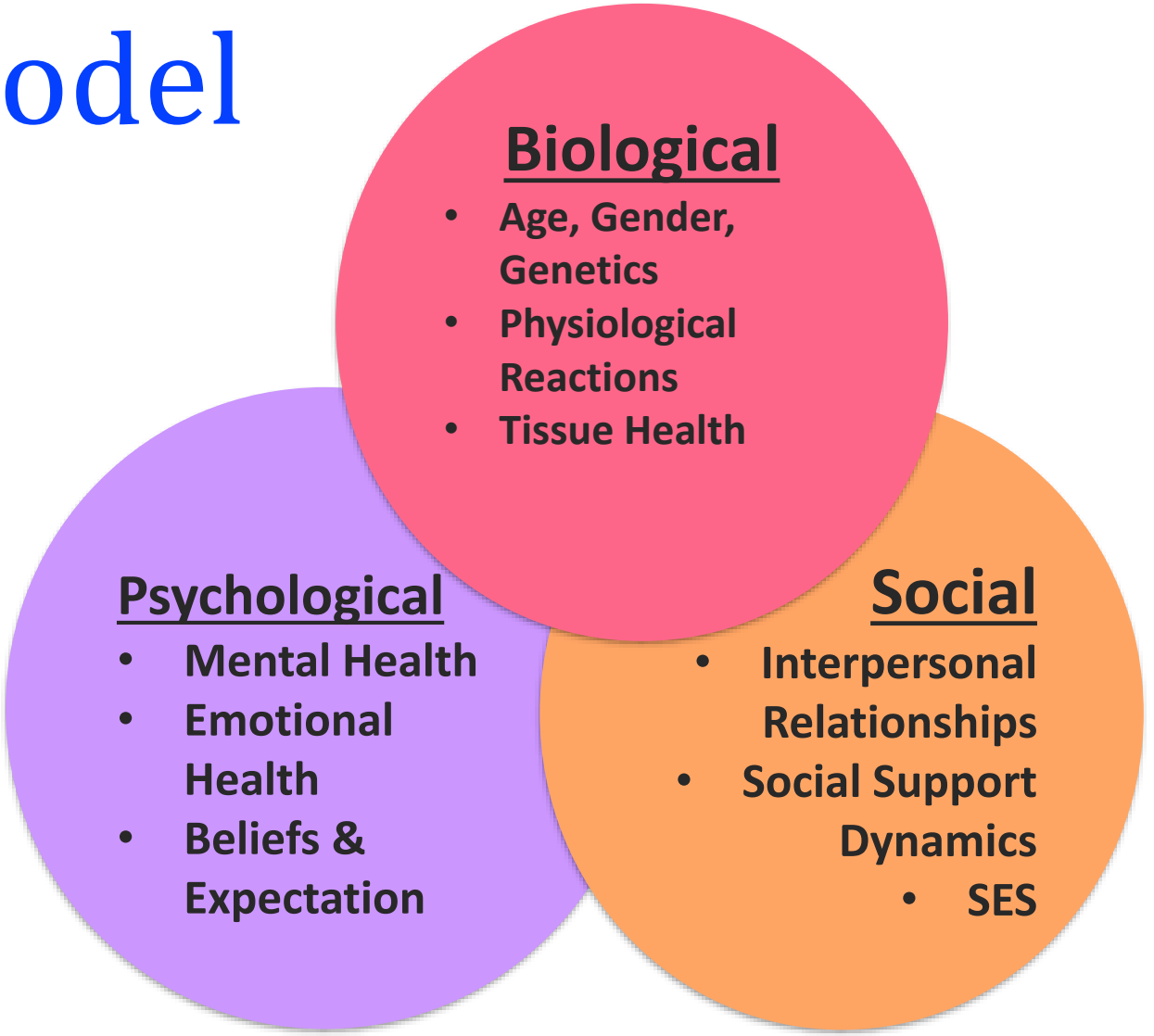
Biopsychosocial Model

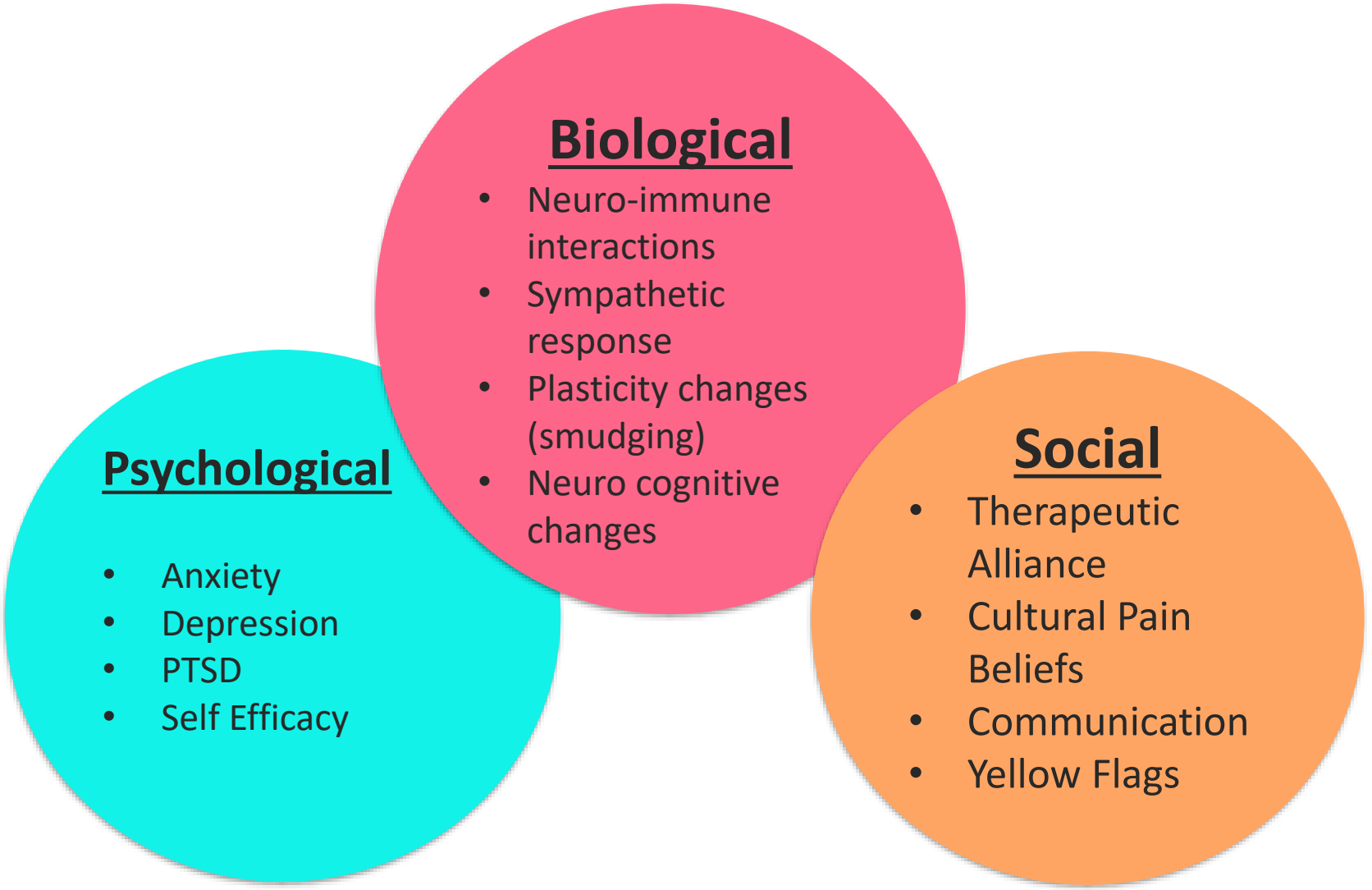
- Supported by clinical practice guidelines
- Partnership with patients- Shared Decision Making (SDM)
- Improve self-efficacy
- Establish meaningful, attainable and measurable goals



Delitto A, George SZ, Dillen LV, et al 2012 Low back pain clinical practice guidelines linked to the international classification of functioning, disability, and health from the orthopaedic section of the APTA. Journal of Orthopaedic and Sports Physical Therapy 42: A1–A57.

Hooten WM, Timming R, Belgrade M, et al 2013 Institute for Clinical Systems Improvement. Assessment and Management of Chronic Pain. Non-Surgical Management of Hip and Knee Osteoarthritis Working Group 2014 VA/DoD Clinical Practice Guideline for the Non-Surgical Management of Hip and Knee Osteoarthritis. Washington, DC, Department of Veterans Affairs/Department of Defense.

BPS Considerations with Pain



Immune System and CNS

Bidirectional communication

Immune upregulation & glial activation leads to:

- Neuro-immune interactions in both central and peripheral nervous system
- Neuroendocrine/sympathetic response
- Plasticity changes (smudging)
- Cognitive and learning and behavioral changes

Beggs, Liu, Kwan, Salter. Peripheral nerve injury and TRPV1-expressing primary afferent C-fibers cause opening of the blood-brain barrier Molecular Pain 2010, 6:74.
Guo, Jia-Bao et al. “Meta-Analysis of the Effect of Exercise on Neuropathic Pain Induced by Peripheral Nerve Injury in Rat Models.” *Frontiers in neurology* vol. 10 636. 14 Jun. 2019.
Grace, Peter M et al. “The Neuroimmunology of Chronic Pain: From Rodents to Humans.” *The Journal of neuroscience : the official journal of the Society for Neuroscience* vol. 41,5 (2021): 855-865.
Meade, Elaine, and Mary Garvey. “The Role of Neuro-Immune Interaction in Chronic Pain Conditions; Functional Somatic Syndrome, Neurogenic Inflammation, and Peripheral Neuropathy.” *International journal of molecular sciences* vol. 23,15 8574. 2 Aug. 2022.
Montague-Cardoso, Karli, and Marzia Malcangio. “Changes in blood-spinal cord barrier permeability and neuroimmune interactions in the underlying mechanisms of chronic pain.” *Pain reports* vol. 6,1 e879. 9 Mar. 2021.
Su, Po-Yi Paul et al. “The Role of Neuro-Immune Interactions in Chronic Pain: Implications for Clinical Practice.” *Journal of pain research* vol. 15 2223-2248. 4 Aug. 2022.
Yang, Jia-Xuan et al. “Potential Neuroimmune Interaction in Chronic Pain: A Review on Immune Cells in Peripheral and Central Sensitization.” *Frontiers in pain research. V*ol. 3 946846. 4 Jul. 2022.

Changes in Brain Juice…

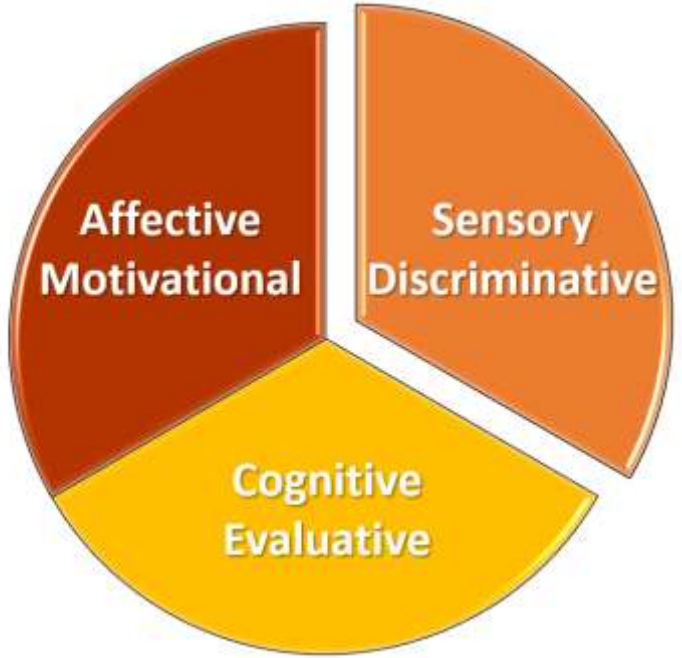
Proinflammatory cytokines linked to:

- Memory dysfunction
- Depression
- Chronic stress states
- Fatigue
- Illness behavior
- Mood disorders
- Sleep dysfunction, etc.

Hannibal KE, Bishop MD. Chronic stress, cortisol dysfunction, and pain: a psychoneuroendocrine rationale for stress management in pain rehabilitation. Phys Ther. 2014;94:1816–1825.
Wang J, Liu Y, Zhou LJ,et al. Magnesium L-threonate prevents and restores memory deficits associated with neuropathic pain by inhibition of TNF-α. Pain Physician. 2013 Sep-Oct;16(5):E563-75.
Gui WS, Wei X, Mai CL,et al. Interleukin-1β overproduction is a common cause for neuropathic pain, memory deficit, and depression following peripheral nerve injury in rodents.Mol Pain. 2016 May 12;12.
McAfoose, J, Baune, B. T. Evidence for a cytokine model of cognitive function. Neuroscience & Biobehavioral Reviews. 2009 33, 355–366.
Skaper SD, Facci L, Giusti P. Neuroinflammation, microglia and mast cells in the pathophysiology of neurocognitive disorders. CNS Neurol Disord Drug Targets. 2014;13(10):1654-66.

Pain and Cognitive Functioning

- Pain as a protective mechanism must incorporate attention, salience/threat evaluation, learning/memory systems, cognition, emotions, etc.
- Pain is an experience which is disruptive to these cognitive processes



Berryman C, Stanton TR, Bowering KJ, Tabor A, McFarlane A, Moseley GL 2013 Evidence for working memory deficits in chronic pain: A systematic review and meta-analysis. Pain 154: 1181–1196.
Higgins, Diana M et al. "The Relationship Between Chronic Pain and Neurocognitive Function: A Systematic Review." *The Clinical journal of pain* vol. 34,3 (2018): 262-275.
Khera, Tanvi, and Valluvan Rangasamy. "Cognition and Pain: A Review." *Frontiers in psychology* vol. 12 673962. 21 May. 2021,
Melzack, Ronald. "Evolution of the neuromatrix theory of pain. The Prithvi Raj Lecture: presented at the third World Congress of World Institute of Pain, Barcelona 2004." *Pain practice : the official journal of World Institute of Pain* vol. 5,2 (2005): 85-94.
Phelps, Caroline E et al. "Cognition in the Chronic Pain Experience: Preclinical Insights." *Trends in cognitive sciences* vol. 25,5 (2021): 365-376.
Timmers, Inge et al. "The interaction between stress and chronic pain through the lens of threat learning." *Neuroscience and biobehavioral reviews* vol. 107 (2019): 641-655.

How Could This Interfere with Goal Setting?

Impaired activation in neural networks for attention, concentration and learning

- Disrupted working memory
- Impaired cognitive flexibility
- Pain drives preference for familiar associations and may foster poor choices

Cowen, Stephen L et al. “Chronic pain impairs cognitive flexibility and engages novel learning strategies in rats.” *Pain* vol. 159,7 (2018): 1403-1412.
Ren WJ, Liu Y, Zhou LJ, et al. Peripheral nerve injury leads to working memory deficits and dysfunction of the hippocampus by upregulation of TNF-α in rodents. Neuropsychopharmacology. 2011 Apr;36(5):979-92. Mao CP, et al 2014 Decreased activation of cingulo-frontal-parietal cognitive attention network during an attention-demanding task in patients with chronic low back pain. Neuroradiology 56: 903–912.

Self-Efficacy

- Defined by Bandura as: “the belief in one’s capabilities to organize and execute the sources of action required to manage prospective situations”
  - Relates to: Absenteeism, fear-avoidance behaviors, pain intensity, level of disability, quality of life, passive-coping styles, learned helplessness and gives the impression the locus of control has shifted away from the patient
  - Measurement: Pain Self-Efficacy Questionnaire or can measure confidence in achieving goal

Bandura A 1986 Social Foundations of Thought and Action: A Social Cognitive Theory. Englewood Cliffs, Prentice-Hall
Nicholas MK 2007 The pain self-efficacy questionnaire: Taking pain into account. European Journal of Pain 11: 153–163.

Self-Efficacy and Locus of Control

- Medication Adherence: connected with high self-efficacy and internal health locus of control
- Entrapment: Feelings of "entrapment" associated with increased depression, anxiety, and pain-related disability
- Older adults: self-efficacy significant predictor of outcomes in ortho rehab
- Research starting to explore self-efficacy related to skills as well as carry-over

1. Blaettler LT, Goméz Penedo JM, Grosse Holtforth M, Egloff N. Being Trapped and Seeing No Way Out - Effects of Entrapment on Treatment Outcome in an Interdisciplinary Pain Treatment. J Acad Consult Liaison Psychiatry. 2022 Jan-Feb;63(1):36-45. doi: 10.1016/j.jaclp.2021.06.006. Epub 2021 Jul 2. PMID: 34224910
2. Lansing AH, Berg CA. Adolescent self-regulation as a foundation for chronic illness self-management. J Pediatr Psychol. 2014;39(10):1091-1096. doi:10.1093/jpepsy/jsu067
3. Náfrádi L, Nakamoto K, Schulz PJ. Is patient empowerment the key to promote adherence? A systematic review of the relationship between self-efficacy, health locus of control and medication adherence. PLoS One. 2017;12(10):e0186458. Published 2017 Oct 17. doi:10.1371/journal.pone.0186458
4. Nicosia FM, Lisha NE, Chesney MA, Subak LL, Plaut TM, Huang A. Strategiesfor evaluating self-efficacy and observed success in the practice of yoga postures for therapeutic indications: methods from a yoga intervention for urinary incontinence among middle-aged and older women. BMC Complement Med Ther. 2020;20(1):148. Published 2020 May 14. doi:10.1186/s12906-020-02934-3
5. Waldrop-Valverde, Drenna & Jr, Owen & Ethington, Corinna & Woemmel, Clay & Coke, Allison. (2001). Self-efficacy, optimism, health competence, and recovery from orthopedic surgery. Journal of Counseling Psychology. 48. 233-238. 10.1037/0022-0167.48.2.233.

Boosting Self-Efficacy

- Actively engaging the patient in goal planning, communication and shared decision making throughout the episode of care appears to enhance self-efficacy
- Promote new challenges
- Encourage to actively seek solutions to their problems
- Teach active coping skills

Pain, Mental Health, and Goals

- Most clinicians are very aware of the association between depression and chronic pain
- Recognize that other psychiatric disorders are frequent co-morbid conditions in patients with chronic pain (such as anxiety or panic disorders, PTSD, substance use disorders, etc.)

Howe CQ, Robinson JP, Sullivan MD 2015 Psychiatric and psychological perspectives on chronic pain. Physical Medicine and Rehabilitation Clinics of North America 26: 283–300.

Stress and Pain

- Pain is a stressful event, therefore ongoing pain is an ongoing stress event which can impact cognition
- Pain and stress also share reciprocal neural, endocrine and immune interactions

Chapman CR, Tuckett RP, Song CW. 2008 Pain and stress in a systems perspective: reciprocal neural, endocrine, and immune interactions. J Pain. Feb;9(2):122-45.

Social Factors and Goal Setting

Social Considerations:

- The therapeutic alliance, home and work life, societal environment, socio-economic status level of education

Evidence In Motion

Therapeutic Alliance

Patient

- Trust
- Hope
- Engaged
- Perceived utility
- Authentic

Therapist

- Empathic
- Compassionate
- Present
- Receptive
- Genuine
- Committed

Benedetti, F. 2011 The Patient's Brain - The neuroscience behind the doctor-patient relationship. Oxford, NY: Oxford University Press.

O'Keeffe M, Cullinane P, Hurley J, et al. 2016 What Influences Patient-Therapist Interactions in Musculoskeletal Physical Therapy? Qualitative Systematic Review and Meta-Synthesis. Physical therapy 96(5).

Communication

- Clinicians with strong biomedical pain beliefs tend to provide management advice in contrast to practice guidelines (e.g. advise let pain be your guide, rest, avoiding pain)
- In turn, fear-avoidant clinician beliefs reflect recommended interventions and targeted goals

Buchbinder R, Staples M, Jolley D 2009 Doctors with a special interest in back pain have poorer knowledge about how to treat back pain. Spine 34: 1218–1227.

Darlow B, Fullen BM, Dean S, et al. 2012 The association between health care professional attitudes and beliefs and the attitudes and beliefs, clinical management, and outcomes of patients with low back pain: A systematic review. Euro J of Pain 16: 3–17.

Linton SJ, Vlaeyen J, Ostelo R 2002 The back pain beliefs of health care providers: Are we fear-avoidant? Journal of Occupational Rehabilitation 12: 223–232.

Economics and Education

- Socio-economic status and educational level are considered to be risk factors in the prediction of chronic pain and disability
- Low educational status may create the potential for chronic stress due to limited employment opportunities and poor financial stability

Nicholas MK, Linton SJ, Watson PJ, Main CJ 2011 "Decade of the flags" working group. Early identification and management of psychological risk factors ("yellow flags") in patients with low back pain: A reappraisal. Physical Therapy 91: 737–753.

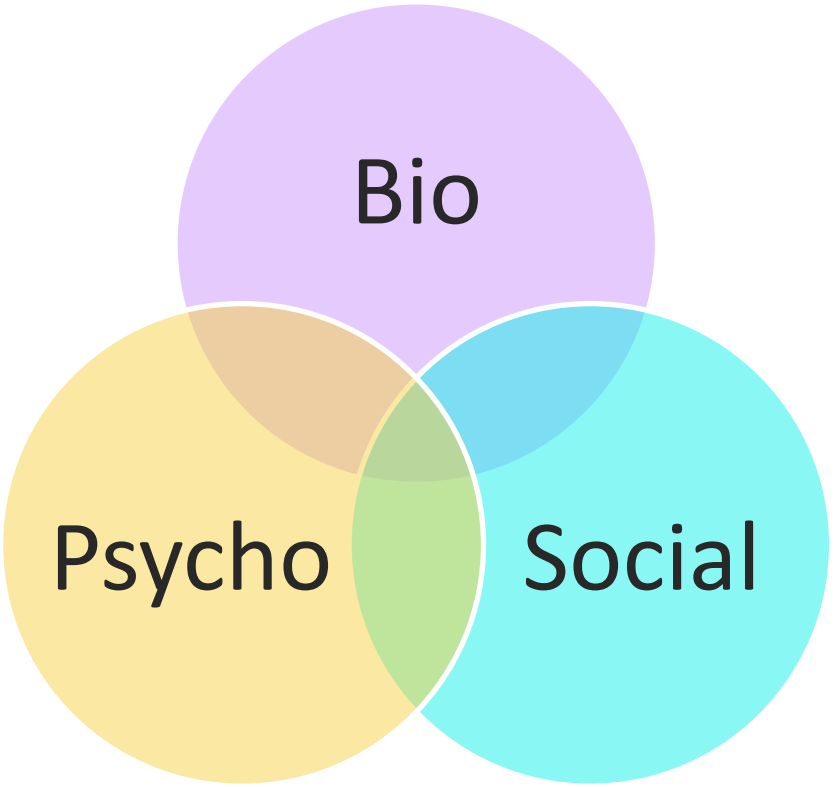
Health Literacy

- Only 12 percent of adults have Proficient health literacy, according to the National Assessment of Adult Literacy (nearly nine out of ten adults may lack the skills needed to manage their health and prevent disease)
- Pain literacy is likely worse

Kutner M, Greenberg E, Jin Y, Paulsen C 2006 The health literacy of America's adults: Results from the 2003 national assessment of adult literacy (NCES 2006–483). U.S. Department of Education. Washington, National Center for Education Statistics.

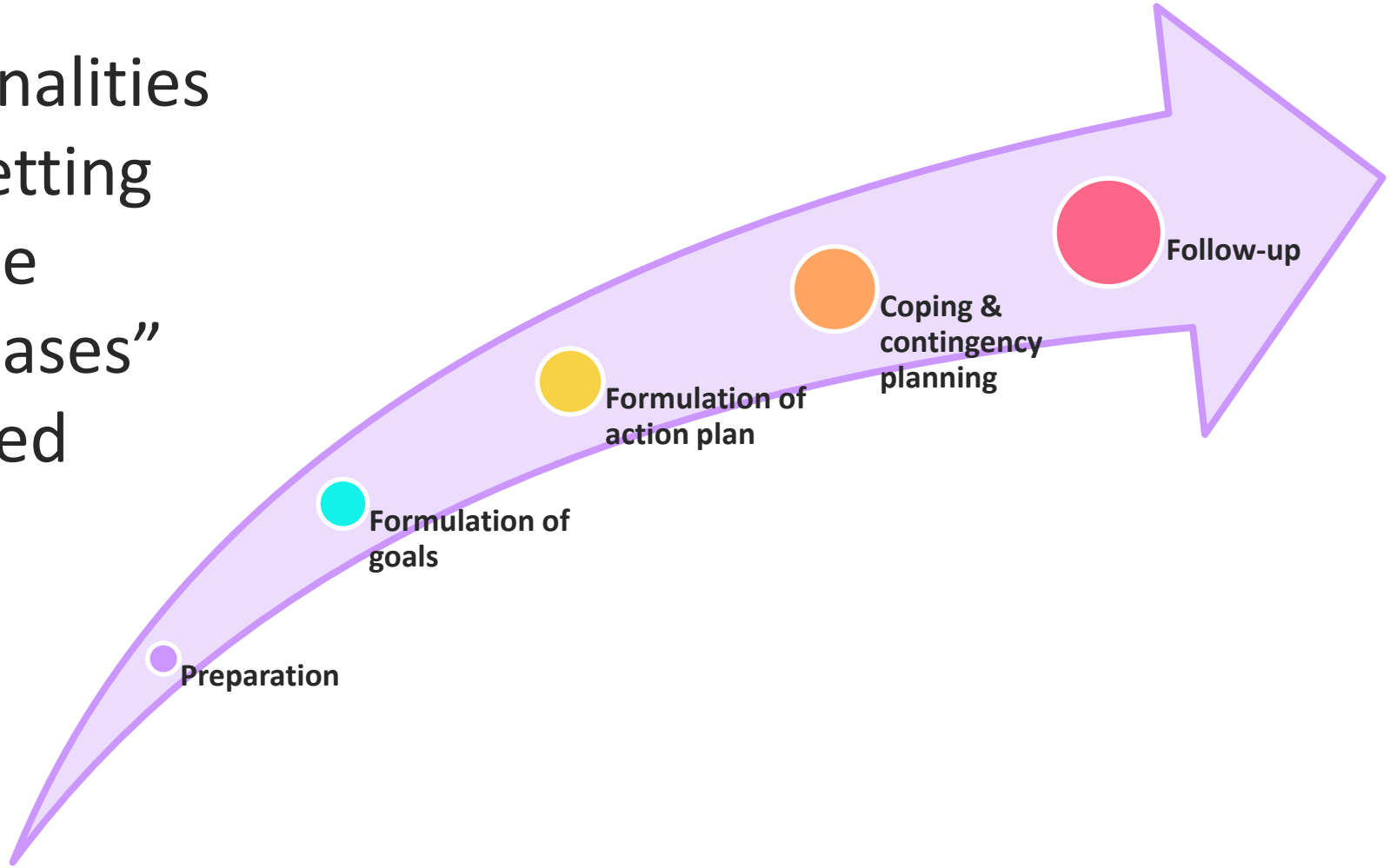
Review: Barriers to Goals

- The previous sessions discussed biopsychosocial barriers to setting goals
  - **Biologic**: Dark side of plasticity, shifting pain to executive functioning, memory, emotional and reward regions
  - **Psychological**: Emotions, depression, stress, self-efficacy
  - **Social**: Therapeutic alliance, communication, social support, values, health literacy
- What's the point?
  - Often underestimated in potential to interfere with goal setting, pursuit and attainment



Goal Setting Phases

Summarizing commonalities from different goal-setting and behavioral change concepts, several “phases” are frequently reported



Lenzen Saet al 2017. Disentangling self-management goal setting and action planning: A scoping review. PLoS ONE 12 (11): e0188822.

Preparation

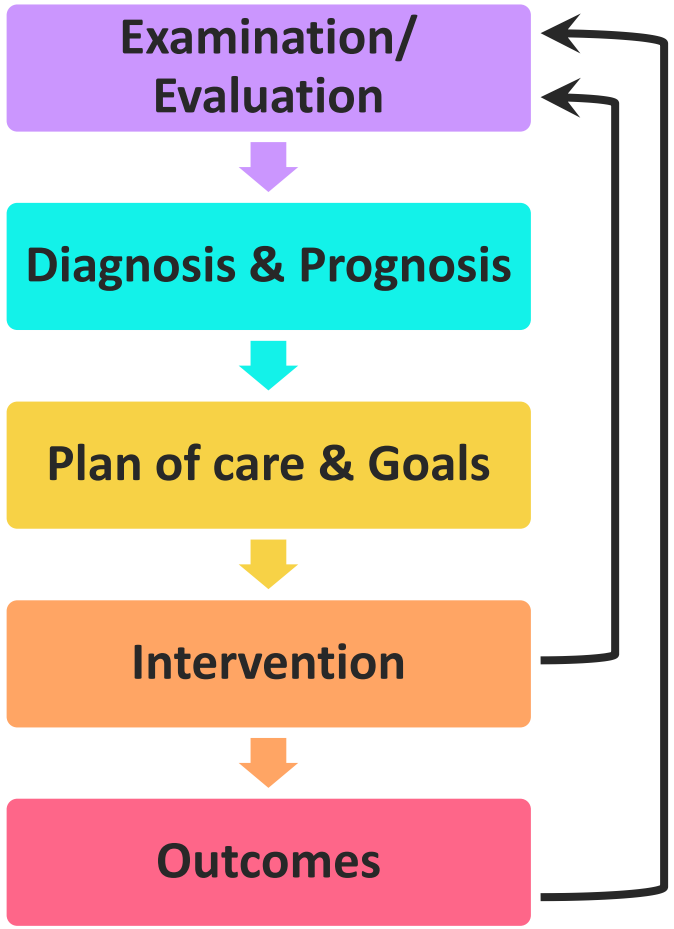
- It is unlikely the patient understands the process of goal setting, pursuit and attainment
- Therefore, one of the first steps is to educate the patient (and relative associates) on the process
- Remember there may have been past failed treatments

Lenzen Saet al 2017. Disentangling self-management goal setting and action planning: A scoping review. PLoS ONE 12 (11): e0188822.

Preparation

Education needs to address:

- Nature of the problem (understanding pain, pain neuroscience education)
- Reflection on beliefs, behaviors & attitudes
- Reason for goal-setting and how it drives the plan of care



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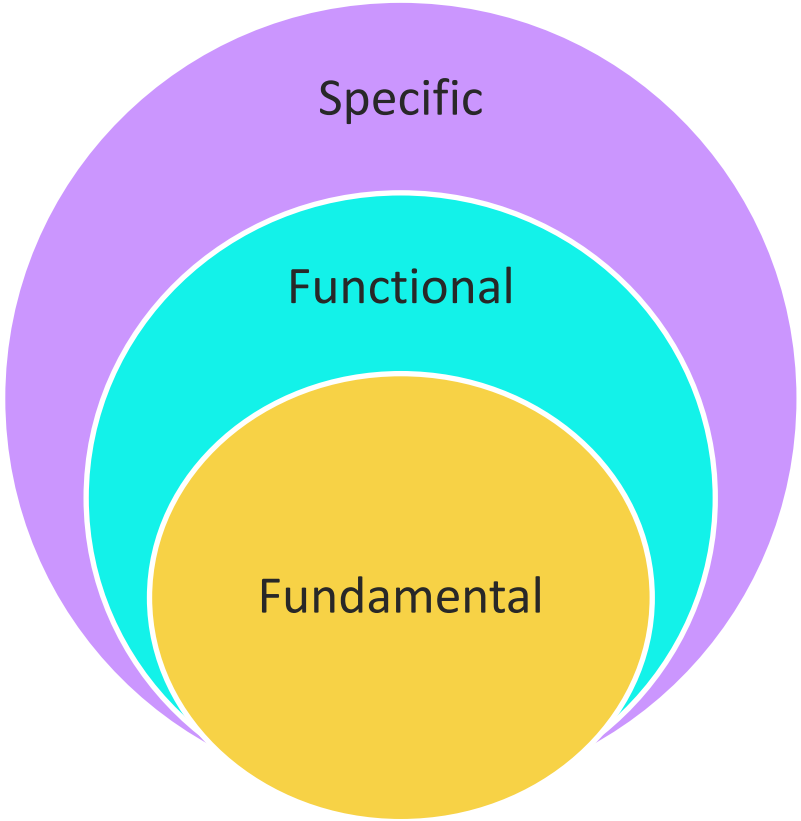
Goal Formulation

Vermunt (2018) and colleagues suggest a 3-tiered goal system consisting of:

- **Fundamental goals**: Values, life priorities, core relationships, quality of life; other goal categories should flow from fundamental goals
- **Functional goals**: Daily functional activities
- **Condition specific goals**: Impairment level goals related to the specific condition



Vermunt NP, Harmsen M, Elwyn G, et al. 2018 A three-goal model for patients with multimorbidity: A qualitative approach. Health Expectations. 21:528–538.

Best-practices: Goal Formulation

- Re-frame the problem in language the patient can understand
- Ask for patient expectations for therapy and thoughts about interventions (to obtain an understanding of the patient and the clinical problem
  - Note: this may likely require more than one session

Schoeb V 2009 "The goal is to be more flexible" – Detailed analysis of goal setting in physiotherapy using a conversation analytic approach. Manual Therapy 14:665–670.

Lenzen Saet al 2017. Disentangling self-management goal setting and action planning: A scoping review. PLoS ONE 12 (11): e0188822.

Goal Formulation

- Patients' goals are made explicit and are written down
- Patient’s goals may differ from the perspective of the clinician
- Initial goals might need reformulating and contain some elements of prognostication (expected or anticipated rate of progress)
- **Goal Adjustment:** Benefits to disengaging from unviable goals toward flexible goal adjustment

1. Schoeb V 2009 "The goal is to be more flexible" – Detailed analysis of goal setting in physiotherapy using a conversation analytic approach. Manual Therapy 14:665–670.
2. Lenzen Saet al 2017. Disentangling self-management goal setting and action planning: A scoping review. PLoS ONE 12 (11): e0188822.
3. Roux L, Gustin SM, Newton-John TRO. To persist or not to persist? The dilemma of goal adjustment in chronic pain. Pain. 2022 May 1;163(5):820-823. doi: 10.1097/j.pain.0000000000002503. PMID: 34581284;

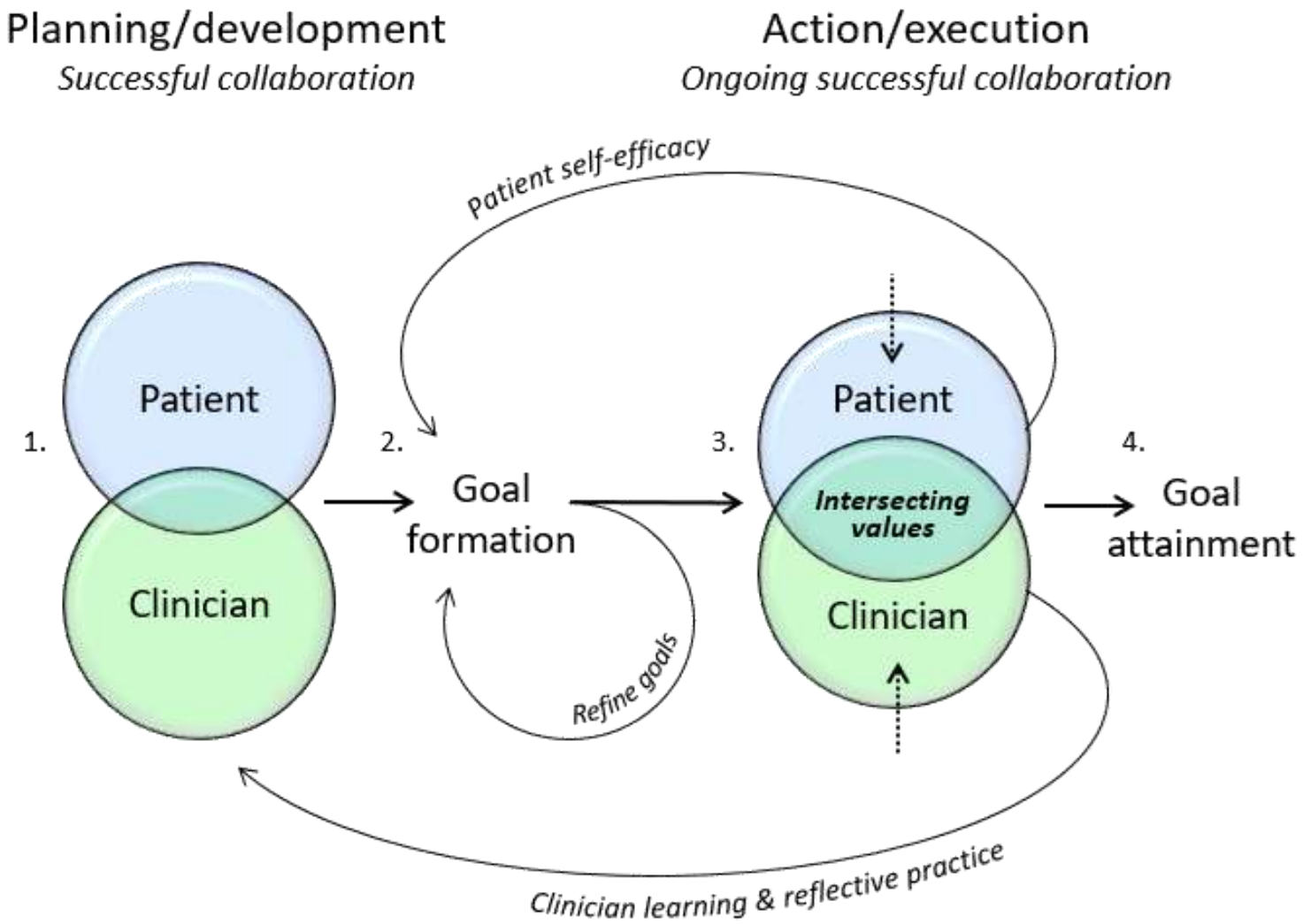
Goal Formulation

Goals

- Improve quality of life
- Improve heart rate during cardio
- Be happier and more positive
- Reduce anxiety
- Improve marriage
- Have more energy
- Know how it feels to be pain-free for a week

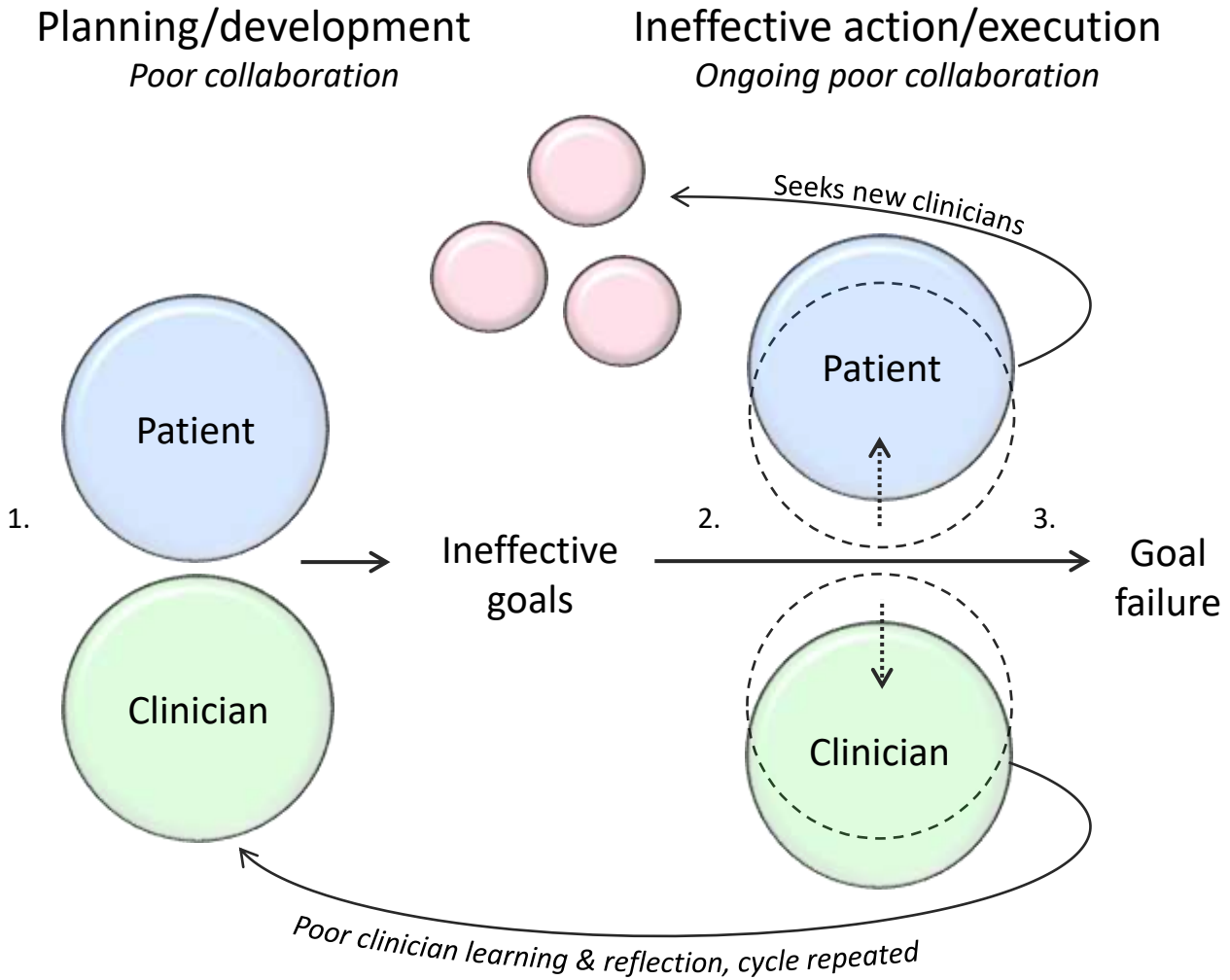
- **What makes you say your goal is to change your QOL?**
- **In what way do you think the quality of life can be improved?**
- **Can you name 2 things that would improve your QOL? Etc.**

Goal Formulation



Schmidt SG. Recognizing potential barriers to setting and achieving effective rehabilitation goals for patients with persistent pain. Physio Theo Pract. Jul 2016;32(5):415-426.

Unaligned goals lead to an ineffective action plan…



Schmidt SG. Recognizing potential barriers to setting and achieving effective rehabilitation goals for patients with persistent pain. *Physiotherapy Theory and Practice.* Jul 2016;32(5):415-426.

Action Plans

TEACH active coping skills! Recall potential biopsychosocial barriers

- People with ongoing persistent pain may experience impaired: executive function, learning, working memory, coping skills, self-efficacy, difficulty managing emotions, stress states, fear avoidance, co-morbid psychological etc
- They may also not be in social, work or family situations which provide optimal support

Schmidt SG. Recognizing potential barriers to setting and achieving effective rehabilitation goals for patients with persistent pain. Physio Theo Pract. Jul 2016;32(5):415-426.

Action Plans

- Explicitly formulate plans which describe potential barriers to the plan and how to overcome (will need assistance)
  - Establish training criteria
  - Identify barriers to the plan
  - Identify facilitators to the plan (strengths, assets, social support, finances, etc.)
  - Assess confidence about carrying out the plan (have them rate it: very confident, somewhat, neutral, not too, not)
  - Develop strategies to overcome barriers

Lenzen Saet al 2017. Disentangling self-management goal setting and action planning: A scoping review. PLoS ONE 12 (11): e0188822.

Activity Analysis

Activity Demand

Aspects of an activity or occupation needed to carry is used and their properties:

- Space demands
- Social demands
- Sequencing and timing
- Required actions and performance skills
- Required underlying body functions and body structures

Performance Skill

Directed actions that are observable as small units of engagement in daily life occupations

They are learned and developed over time and are situated in specific contexts and environment

- Motor skills
- Process skills
- Social interaction skill

Components of Analysis	Occupation- Driving to Work
Relevance/Meaning	• Exercise independence • Important for community mobility
Objects/Tools	Car: Steering wheel, foot pedals for braking and accelerating, rear view and side mirrors, blinker signal to turn, chair with electric controls
Space	Moderate room in the cabin of the car to move arms and feet; everything in about arm's reach
Social	Rules of the road, respecting the space and signals of other drivers, respect speed limit
Sequencing	• Turning on the car, checking mirrors, buckle seat belt, change gears • Sequence changing lanes or turning
Required Actions/ Performance Skills • Motor • Process • Social	• Grip the steering wheel, coordination of motor skills to move the steering wheel, keep body and head upright • Scan the road for potholes and other drivers, plan your navigation or route, attention to the road and task, respond to unexpected traffic or car • Takes turns at a stop sign, socializes with passenger while not maintaining consistent eye contact
Body Functions/ Body Structures • Mental • Sensory • Musculoskeletal • Speech • Cardiovascular • Other	• Alert and conscious, ability to focus for prolonged periods • Sensation of the wheel, proprioception, visual acuity • Upper extremity and lower extremity strength (use of arms and legs)

Components of Analysis	Occupation- Driving to Work
Relevance/Meaning	Exercise independence. Important for community mobility.
Objects/Tools	**Car-**Steering wheel, foot pedals for braking and accelerating, rear view and side mirrors, blinker signal to turn, chair with electric controls
Space	Moderate room in the cabin of the car to move arms and feet. Everything in about arm's reach.
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Sequencing	Turning on the car, checking mirrors, buckle seat belt, change gears. Sequence changing lanes or turning.
Required Actions/ Performance Skills • Motor • Process • Social	• Grip the steering wheel, coordination of motor skills to move the steering wheel, keep body and head upright. • Scan the road for potholes and other drivers, plan your navigation or route, attention to the road and task, respond to unexpected traffic or car • Takes turns at a stop sign, socializes with passenger while not maintaining consistent eye contact
Body Functions/ Body Structures • Mental • Sensory • Musculoskeletal • Speech • Cardiovascular • Other	• Alert and conscious, ability to focus for prolonged periods • Sensation of the wheel, proprioception, visual acuity, auditory processing • Upper extremity and lower extremity strength (use of arms and legs) • Sustained seated position

Shared Decision Making... In Action

- Things to consider
  - What are the non-negotiables?
  - Find areas of greatest "flexibility"
  - Consider all aspects of the targeted activity and look for the barriers and supports in
    - ❑ Person
    - ❑ Task
    - ❑ Environment

Evidence In Motion

Contingency Planning

- Pain is variable; flare-ups can and will happen, help patients prepare/plan
- Be-aware: Many Internet resources appear to encourage withdrawal, rest, or avoidance behavior such as movies, comfortable clothes, chocolate, soft blankets, heating pad, break-through medicine, pre-prepared meals, fluffy slippers, etc.

Stanton TR, Henschke N, Maher CG, et al 2008. After an episode of acute low back pain, recurrence is unpredictable and not as common as previously thought. Spine 33(26):2923-2928.

Suri P, Rainville J, Fitzmaurice GM, et al 2011 Acute low back pain is marked by variability: An internet-based pilot study BMC Musculoskeletal Disorders 2011, 12:220.

Suri P, Rainville J, Schepper DE, et al 2018 Do Physical Activities Trigger Flare-ups During an Acute Low Back Pain Episode?: A Longitudinal Case-Crossover Feasibility Study. Spine 15;43(6):427-433.

Raymond MW, Webster BS, Stover HS, Simon H 2000 The Relation Between Pain Intensity, Disability, and the Episodic Nature of Chronic and Recurrent Low Back Pain. Spine 25(7):834-841.

Contingency Planning

Keys: self-efficacy; active coping

Rescue plans/contingency planning

- Identify critical movement-based activities that require adaptation modification.
    - Recalibrate pacing
    - Identify environmental supports (AE, AT,)
    - Work simplification/energy conservation strategies
- Non-pharmacological, complementary self-care:
    - Diaphragmatic breathing, mindfulness, relaxation, motor imagery, TENS, ice/heat, self-massage, etc.

Bartholdy C, Klokker L, Bandak E, et al. 2016 A Standardized "Rescue" Exercise Program for Symptomatic Flare-up of Knee Osteoarthritis: Description and Safety Considerations JOSPT 46(11): 942-A16.

Follow-up

- Patients actively work on achieving their goals and/or often need support toward their goals and carrying out action plans
  - Self-monitoring (log-book, journal, apps, checklists, activity monitors, etc.)
  - Support (peer or social support, accountability, etc.)
  - Frequent check in – Goal Attainment Scaling, mini-goals
  - Constant reinforcement and re-assessment

Lenzen Saet al 2017. Disentangling self-management goal setting and action planning: A scoping review. PLoS ONE 12 (11): e0188822.

Take Aways

Goal setting is a complicated process that involves a bidirectional relationship b/w clinician and patient in a process of shared decision making

Biopsychosocial aspects of pain must be considered in the goal setting process to optimize the patient engagement in the process.

Goal setting can increase self-efficacy in patients and improve overall outcomes.

Patients should be educated on the process of goal setting to ensure carryover when attempting new activities beyond the episode of care.

Questions

Thank you!

Evidence In Motion