

# Patient-Centric Rehabilitation

## Goals and Objectives

### Course Overview

"Patient-Centric Rehabilitation" is an online recorded video of a previously presented live CE webinar for occupational therapists and occupational therapy assistants. It explores the contemporary concept of the therapeutic alliance as an influential factor in achievement of rehabilitation outcomes. Current research related to patient satisfaction, clinician characteristics, and cooperative strategies to foster patient centered rehabilitation are presented.

### Course Rationale

This program is designed to enhance clinical outcomes by providing the learner with instruction on how to effectively create a patient-centric rehabilitation environment through the use of collaborative integration and therapeutic alliance techniques.

### Course Objectives

Upon completion of this course, the participant will be able to:

1. Distinguish therapy outcomes and patient expectations as components of recovery.
2. List common characteristics of clinicians regarded as experts in their field.
3. Define the therapeutic alliance and its core components as it relates to patient/practitioner interaction.
4. Identify the impact of the therapeutic alliance on patient outcomes.
5. Identify assessment tools to analyze patient satisfaction with the therapeutic relationship.
6. Recognize the impact of clinician personality and interactions on clinical outcomes.
7. Identify strategies to foster patient centeredness during clinical interactions and maximize participation.
8. Recognize strategies that create an effective therapeutic dynamic.

**Course Provider** – Innovative Educational Services

**Provider Contact Information** – [information@cheapceus.com](mailto:information@cheapceus.com)

**Course Instructor** – Jodi Gootkin, PT, Med, CEAS

**Financial/Non-financial Disclosure** - Neither the Provider nor the instructor have any financial or non-financial conflict of interest related to the presentation of this CE program.

**Target Audience** – Occupational Therapists, Occupational Therapy Assistants

**OT Scope of Practice** – Foundational Knowledge; OT Service Delivery

**Course Educational Level** – This course is applicable for introductory learners.

**Course Prerequisites** – None

**Instructional Method** – Distance Learning – Independent; Asynchronous online video-based home study

**Location** - Cheapceus.com

**Date** – Continuously available on-demand

**PD Activity Completion Requirements / Criteria for Issuance of CE Credits** – Completion of viewing of 1 hour recorded video, and a score of 70% correct or greater on the course post-test.

**Continuing Education Credits** – Three (3) contact hours / .3 AOTA CEUs

**Course Fee** - \$34.95

**Registration Information** – No pre-registration required; available on-demand at Cheapceus.com

**Special Needs Requests** – Email: [information@cheapceus.com](mailto:information@cheapceus.com) or phone: 954-663-4101

**Cancellation by the Learner** – Learners may cancel their participation at any time and receive a full refund of all paid fees.

**Cancellation by the Provider** – Registrants for the cancelled activity will be contacted by an IES staff member via phone call or email within 12 hours of the cancellation decision. If the decision to cancel is made less than 14 hours prior to the event, each participant will be contacted no later than 2 hours prior to the scheduled start time of the activity. Registrants will receive a full refund if an activity is cancelled by the Provider. The refund will be processed back to the Registrant within 12 hours of the cancellation.

**Complaint Resolution** – Please call 954-663-4101 (24 hours/day, 7 days/week) to speak with a live customer service agent. Our goal is to work with our customers to resolve all issues to the customer's satisfaction with just one phone call whenever possible.

**Refund Policy** - Unrestricted 100% refund upon request. The request for a refund by the learner shall be honored in full without penalty or other consideration of any kind. The request for a refund may be made by the learner at any time without limitations before, during, or after course participation.



Innovative Educational Services is an AOTA Approved Provider of professional development. PD activity approval ID# 5471. This Distance Learning – Independent PD activity is offered at .3 CEUs; Introductory; OT Foundational Knowledge; OT Service Delivery. The assignment of AOTA CEUs does not imply endorsement of specific course content, products, or clinical procedures by AOTA.

# Patient-Centric Rehabilitation

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## Overview of Course

"Patient-Centric Rehabilitation" explores the contemporary concept of the therapeutic alliance as an influential factor in achievement of rehabilitation outcomes. Current research related to patient satisfaction, clinician characteristics, and cooperative strategies to foster patient centered rehabilitation are presented.

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## Course Rationale

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## Goals and Objectives

1. Distinguish therapy outcomes and patient expectations as components of recovery.
2. List common characteristics of clinicians regarded as experts in their field.
3. Define the therapeutic alliance and its core components as it relates to patient practitioner interaction.
4. Identify the impact of the therapeutic alliance on patient outcomes.
5. Recognize the emerging correlation between patient practitioner interaction and pain management.
6. Determine assessment tools to analyze patient satisfaction with the therapeutic relationship.
7. Compare your personality style to common traits of clinicians identified in contemporary research.
8. Identify the impact of clinician personality and interactions on clinical outcomes.
9. Select strategies to foster patient centeredness during clinical interactions and maximize participation.
10. Classify contributors of an effective therapeutic dynamic including verbal and non-verbal strategies.

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## Course Outline/Schedule

Topic	Time
Conceptual Frameworks of Patient Recovery	0:00-0:10
Consideration of Patient Expectations	0:11-0:20
Characteristics of Expert Clinicians	0:21-0:30
Defining the Therapeutic Alliance	0:31-0:40
Impact of the Therapeutic Alliance on Outcomes	0:41-0:50
<b>Interactive Discussion of Clinical Applications</b>	<b>0:51-0:60</b>
Influencing Pain Perception	1:01-1:20
Understanding Patient Satisfaction	1:21-1:30
Adherence and Engagement	1:31-1:35
Analyzing Patient Clinician Interaction Styles	1:36-1:45
Exploring Empathy and Trust	1:46-1:50
<b>Interactive Discussion of Clinical Applications</b>	<b>1:51-2:00</b>
Identify Your Personality Style	2:01-2:05
Impact of Clinician Personality on Clinical Outcomes	2:06-2:20
Employing Patient Centered Communication	2:21-2:30
Instrumental Versus Affective Styles	2:31-2:40
Adapting Non-Verbal Strategies	2:41-2:50
<b>Interactive Discussion of Clinical Applications</b>	<b>2:51-3:00</b>

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This

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## How to Obtain CEUs for this Course

- After watching the video go to [www.cheapceus.com](http://www.cheapceus.com)
- Complete the post test with score of at least 70%
  - ▶ May be retaken multiple times
- Submit online payment for course
- Print Certificate
- **Course Review and Summary for Post Test at the end of the webinar.**



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## Conceptual Frameworks of Patient Recovery

- Disablement models guide the clinician's reasoning considering the relationship between health and function to develop goals then interventions.
- **Nagi Model**



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## WHO ICF Model

- World Health Organization - International Classifications of Functioning, Disability, and Health

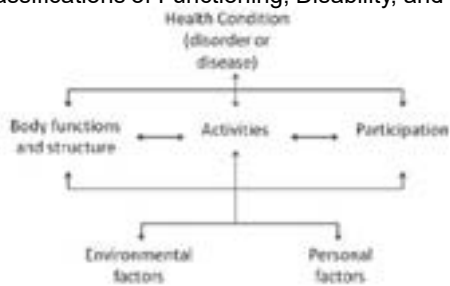


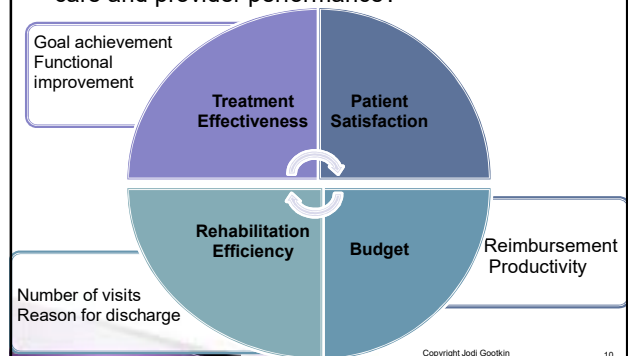
Image from: Salvador-Carulla, Luis, and Carlos García-Gutiérrez. "The WHO Construct of Health-Related Functioning (HrF) and Its Implications for Health Policy." *BMC Public Health* 11.Suppl 4 (2011):S9. PMC. Web. 7 Aug. 2016.

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## Therapeutic Outcomes

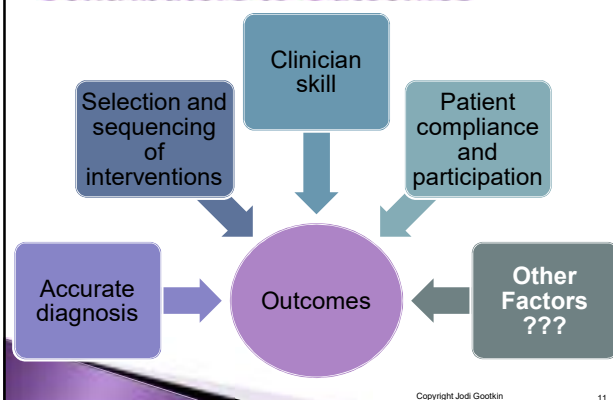
- What indicators are utilized to assess quality of care and provider performance?



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## Contributors to Outcomes



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## Defining Recovery

- Establishing therapy goals should be a joint decision between clinician and patient.
- Clarification of the patient's definition of recovery may play a role in outcomes.
  - ▶ Is their goal to have no pain or be able to function with some pain?
  - ▶ What do they consider Ideal versus Expected recovery?
- Patients must trust the clinician's judgment and skills will facilitate achievement of their goals and desired outcomes.



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## Expectation of Recovery

*Expectations are shared associations between behaviors and resulting consequences.*

Janzen, Jennifer Amy, et al. "What is a health expectation? Developing a pragmatic conceptual model from psychological theory." *Health Expectations* 9.1 (2006): 37-48.

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## Developing Expectations

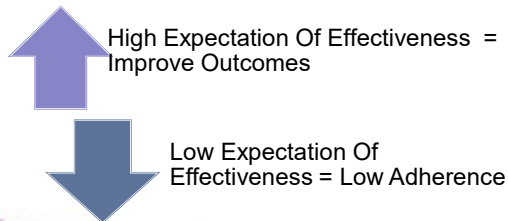
- Influenced by:
  - Belief or disbelief in diagnosis
  - Direct personal experiences
  - Other's experiences and attitudes
  - Information suggestions
  - Sense of control
  - Self-efficacy
  - Hopes and fears

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## Expecting = Achieving?

- Positive correlation between expectation to recover and actual recovery in individuals with low back pain and myocardial infarction.



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## Aligning Patient Expectations

- Patient should participate in developing goals to allow early correction of misconceptions.
- Address patient concerns over prognosis for return to work and activity.
- During patient education, clarify what "should" happen in response to interventions to adjust patient expectations.
- Negotiate patient's role in recovery.

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## Aligning Expectations Continued

- Upon evaluation, consider asking patients to indicate if they expect their pain to worsen, stay the same, or improve with therapy.
- Clarify what the patient "Thinks" will occur and what they "Want" to occur with therapy.
- When developing goals, ask patient about their predicted expectation in a specific time frame.
  - Reference specific functional tasks

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## Intervention Selection

- Select interventions that take into consideration what the patient has shared as their expectation.
- Consider allowing the patient to contribute to the decision.

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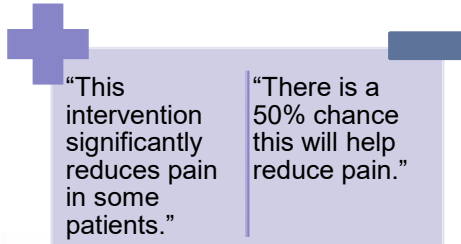
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## Placebo Influence

- Phrasing can influence how patients interpret information and the expectation it establishes.



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*How do you describe an  
Expert Clinician?*

*"provides high quality care"*

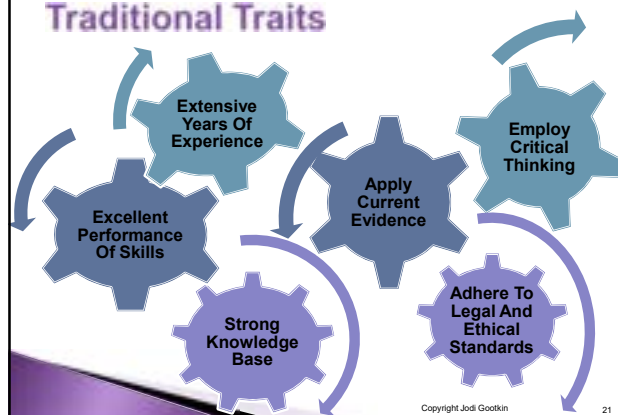
*"achieves consistent positive  
outcomes"*

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## Traditional Traits



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## Additional Characteristics of Experts

- Provide more hands on care.
- Possess an inner drive for lifelong learning.
- Maximize healthcare resources.

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## How Experts Think

- Multidimensional clinical reasoning .
- Seek information from patients.
- Provide additional patient education.
- Emphasis on patient empowerment.

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## Patient Empowerment

- Discouraging helplessness and dependency aids patients in developing a sense of empowerment.
- Maximize what is accomplished in each therapy session by limiting passive interventions and modalities.
- Instructing patients in self management strategies to alleviate symptoms is beneficial.

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## Affective Traits of Experts

- Engage in more social exchanges with patients.
- Demonstrate commitment and caring.

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## So Why the Differences in Outcomes?

- Historically, the biomedical model has been utilized to determine practice patterns.

Signs and Symptoms



Pathology



Interventions

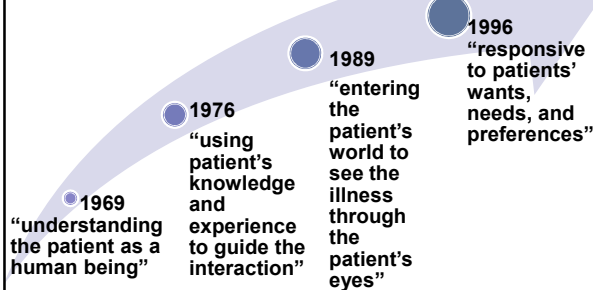
- Emerging perspective that consideration of the social and psychological factors accompanying illness must be addressed.

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## Patient Centered Care



Mead, Nicola, and Peter Bower. "Patient-centeredness: a conceptual framework and review of the empirical literature." *Social Science & Medicine* 51.7 (2000): 1087-1110.

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## Current Perspective of Care

- The contemporary description focuses on a cooperative therapist-patient relationship referred to as the **Therapeutic Alliance**.
- Also referred to as:
  - Working alliance
  - Therapeutic relationship
  - Therapist patient interaction
  - Therapeutic bond
  - Helping alliance
  - Collaborative practice
  - Collaborative bond



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## The Therapeutic Alliance Proposes...

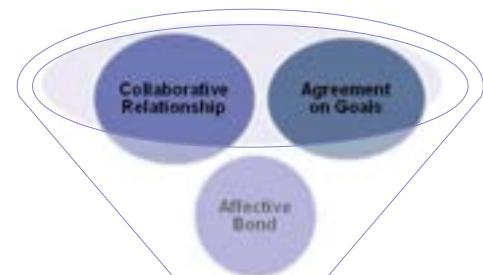
- "while what we do is important, aspects of **WHO WE ARE**, and **HOW WE WORK** with our clients may be crucial"

Kayes, Nicola M., and Kathryn M. McPherson. "Human technologies in rehabilitation: 'Who' and 'how' we are with our clients." *Disability and Rehabilitation* 34.22 (2012): 1907-1911.

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**Therapeutic Alliance  
Core Components**

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## Agreement On Goals

- In addition to ensuring patient expectations are aligned with realistically attainable goals, shared decision making empowers the patient.
- The clinician ensures the selected interventions are relevant to the patient's priorities and needs.
- Individualize treatments should be incorporated

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## Collaborative Relationship

- The patient is viewed as an important source of information to combine with the clinician's clinical reasoning and knowledge.
- Communication is emphasized to generate mutual understanding.

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## Affective Bond

- The interpersonal relationship between the patient and therapist is multifaceted incorporating aspects of:
  - Trust
  - Confidence
  - Caring
  - Respect
  - Empathy
  - Understanding
  - Positive Atmosphere
  - Sensitivity

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## Influencing Outcomes

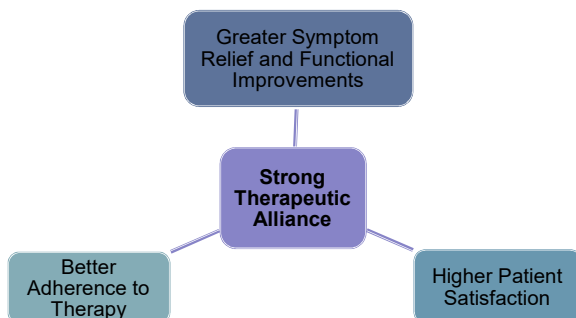
- The therapist client relationship is recognized as a significant variable influencing patient outcomes.
- In many studies even to a greater extent than the actual treatment the patient received.

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## Impact on Outcomes



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## Impact of Treatment Team Size

- Does a larger treatment team compromise the patient clinician relationship and diminish participation?
- Case Example: 30 year old male sustained T1 spinal cord injury in a motor vehicle accident. During his two month stay at the Inpatient Rehabilitation Facility, he participated in individual, group, and co-treatment therapy sessions in addition to receiving care from nursing, psychology, and social work disciplines.

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## Interactions with Healthcare Providers

Number of Patients	1
Average Number of Medical Professionals Patient Interacted With	40
Number of PTs and OTs Providing Care	17
Mean Number of Therapy Sessions	222

➤ Communication among the team is crucial to ensuring familiarity with the patient and maintaining their ongoing participation.

Dijkers, Marcel P., and Rose-Marie Faccio. "Team size in spinal cord injury inpatient rehabilitation and patient participation in therapy sessions: the SCIRehab project." *Journal of Spinal Cord Medicine* 35.6 (2012): 624-634.

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# Greater Symptom Improvement

- Clinicians can see enhanced benefits from a collaborative working alliance in populations whose symptoms are influenced by psychosocial factors.
- Current research illustrates consistent and positive correlation between therapeutic alliance and treatment outcomes related to pain.



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## Pain: Fear Avoidance Model

- High pain-related fear scores tend to be associated with over-predicting pain levels during activity leading to activity avoidance.

```

graph TD
    DDD[DISEASE/DEPRESSION/DISABILITY] --> PE[PAIN EXPERIENCE]
    PE --> AV[AVOIDANCE/HYPERAVOIDANCE]
    PE --> CON[CONFRONTATION]
    AV --> PRF[PAIN-RELATED FEAR]
    PRF --> PC[PAIN CATASTROPHIZING]
    PC --> NA[NEGATIVE AFFECTIVITY]
    NA --> TII[THREATENING ILLNESS INFORMATION]
    TII --> PE
    CON --> R[RECOVERY]
  
```

Image from Rolying, Nanna et al. "Description and Design Considerations of a Randomized Clinical Trial Investigating the Effect of a Multidisciplinary Cognitive-Behavioural Intervention for Patients Undergoing Lumbar Spinal Fusion Surgery." *BMC Musculoskeletal Disorders* 16:141-62. *Pain*. Web. 7 Aug. 2016. License [https://open.nlm.nih.gov/detailedinfo/tm/PMC3973886\\_1471-2474-15-62-1&query=the+fear+avoidance+model&req=4&pos=5](https://open.nlm.nih.gov/detailedinfo/tm/PMC3973886_1471-2474-15-62-1&query=the+fear+avoidance+model&req=4&pos=5)

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# Influencing Pain

- Research indicates beliefs can have produce a positive or negative influence on pain perception.

```
graph TD; A[Poor Clinical Outcome] --> B[High Pain Related Fear]; B --> C[Anticipate Pain with Treatment]; C --> D[Negative Predicted Expectation]; D --> A;
```

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## Pain Modulating Effects of Analgesia Expectation

- Spinal Cord Level Response
  - ▶ Decreased withdrawal reflex was measured.
- Brain Level Response
  - ▶ Functional MRI indicated decreased brain activity in the thalamus, insula, and anterior cingulate.
- Endogenous Opioid Response
  - ▶ PET scans reveal increased opioid binding in limbic regions.
- Cognitive Control
  - ▶ Dorsolateral prefrontal cortex may provide descending modulation of pain.

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## Modifying Expectations

- Reconceptualization of pain in combination with therapy can contribute to improved functioning and decreased pain level.
- Promote positive expectations by addressing patient beliefs about treatments and outcome.

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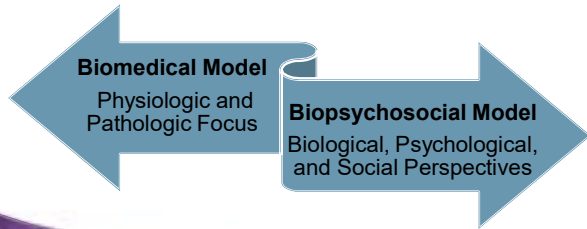
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## Patient Understanding of Pain

- Explore most effective model for patient education to modify their expectations:



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## Intervention Selection

- Interventions must address physiologic effects for healing and include strategies to minimize fear of pain and maladaptive coping mechanisms.
- Active exercise interventions versus passive manual therapy or modalities may be more beneficial in managing fear avoidance.

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## Value of Therapeutic Alliance

- An enhanced alliance has demonstrated significant effect on pain severity, pain interference, and physical functioning.

Intervention	Pain Outcome
Sham IFC Limited Alliance	No clinically meaningful change
Active IFC Limited Alliance	Patient perception was meaningful reduction in pain
Sham IFC Enhanced Alliance	Better objective results than active treatment with limited alliance
Active IFC Enhanced Alliance	Decreased pain intensity and pain pressure threshold

Fuentes, Jorge, et al. "Enhanced therapeutic alliance modulates pain intensity and muscle pain sensitivity in patients with chronic low back pain: an experimental controlled study." *Physical Therapy* 94.4 (2014): 477-489.

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## Defining Quality of Care

- The World Health Organization

*"avoid[s] suggesting that 'one size fits all' and that there are 'magic bullets' for quality."*

- Traditional dimensions of quality include:
  - Evidence based services with results that improve outcomes.
  - Efficient and safe practices.
  - Acceptable and equitable care.

[http://www.who.int/management/quality/assurance/QualityCare\\_B.Def.pdf](http://www.who.int/management/quality/assurance/QualityCare_B.Def.pdf)

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## Measuring Quality of Care

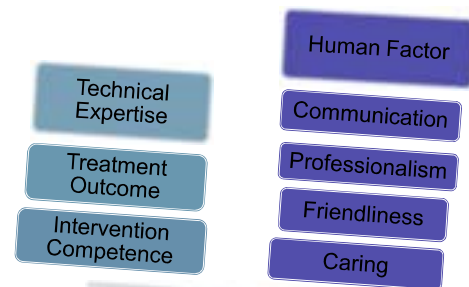
- Researches advise caution in using primarily treatment outcome based assessment.
- Patient subjective experience is not typically evaluated when assessing quality of care.
- Expectation of recovery plays a role in formulating satisfaction.

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## Understanding Patient Satisfaction



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### PSQ-18 Patient Satisfaction Questionnaire

- A public domain tool specifically assessing several dimensions of satisfaction.
- General satisfaction
- Technical quality
- **Interpersonal manner**
  - The therapist acts too businesslike and impersonal toward me.
- **Communication**
  - The therapist is good about explaining the reason for my treatments.
- Financial aspects
- **Time spent with provider**
- **Accessibility and Convenience**

RAND Corporation. Patient Satisfaction Questionnaire from RAND Health. Retrieved August 2016 from [http://www.rand.org/health/surveys\\_tools/psq.html](http://www.rand.org/health/surveys_tools/psq.html)

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### Assessing Patient Centeredness

- The majority of tools were created to assess the effectiveness of psychotherapy.
- Helping Alliance Questionnaire
- Working Alliance Inventory
- Re-phrasing questions to re-contextualize them for the rehabilitation setting may yield more valid and reliable information.
- **Original:** "I feel that my therapist appreciates me."
- **Re-phrased:** "I feel that my therapist values my opinion in treatment planning."

Hall, Amanda Marie, et al. "Assessment of the therapeutic alliance in physical rehabilitation: a RASCH analysis." *Disability and Rehabilitation* 34.3 (2012): 257-266.

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### HAQ-II Helping Alliance Questionnaire

- Self assessment tool measures the strength of the clinician therapist bond from various perspectives.

<b>Collaboration</b>	"The therapist and I have meaningful exchanges."
<b>Perception of therapist</b>	"At times I distrust the therapist's judgment."  "I believe that the therapist likes me as a person."
<b>Motivation</b>	"I want very much to work out my problems"

Luborsky, L., et al. "The revised helping alliance questionnaire (HAQ-II)." *Journal of Psychotherapy Practice and Research* 5 (1996): 260-271. <http://www.med.upenn.edu/pcpr/instruments.html>

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### WAI Working Alliance Inventory

- This self report instrument is most commonly utilized to measure the quality of therapeutic relationships.
- There are very specific copyright restrictions for use of the tool. It is NOT public domain.
- Each item statement is rated to assess a feeling, sensation, or attitude reflective of the primary components of the alliance.

Horvath A, Greenberg L. Development and validation of the Working Alliance Inventory. *Journal Of Counseling Psychology* [serial online]. April 1989;36(2):223-233.

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### Elements of Participation



- Possessing a greater expectation of recovery enhances participation

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### Adherence vs. Engagement

- |                                                                |                                                                           |
|----------------------------------------------------------------|---------------------------------------------------------------------------|
| ➤ Following advice and performing interventions as instructed. | ➤ Actively interacting and accepting responsibility for course of therapy |
|----------------------------------------------------------------|---------------------------------------------------------------------------|

**Task Performance**

**Motivation**

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## Pittsburgh Rehabilitation Participation Scale

- Clinician rated tool assessing patient participation in therapy sessions.
- Likert-type scale based on exercise/activity:
  - Amount of participation
  - Level of effort
  - Portion completed
  - Passive or active interest

Example: **Good**: patient participated in all exercises\* with good effort and finished most but not all exercises\* and passively followed directions (rather than actively taking interest in exercises\* and future therapy).

Lenze, Eric J., et al. "The Pittsburgh Rehabilitation Participation Scale: reliability and validity of a clinician-rated measure of participation in acute rehabilitation." *Archives of physical medicine and rehabilitation* 85.3 (2004): 380-384.

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## Research Evidence

Patient Cohort	Findings
Physicians and Patients with Rheumatoid Arthritis	High physician adherence rating linked with positive patient rating of alliance.  Positive working alliance predicted strong outcome expectations and satisfaction

Fuertes, Jairo. The physician-patient working alliance and patient psychological attachment, adherence, outcome expectations, and satisfaction in a sample of rheumatology patients. *Behavioral Medicine* [0896-4289]yr. 2015 vol.41 iss.2 pg.60

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## Research Evidence continued

Patient Cohort	Findings
Physical Therapists and Patients with Low Back Pain or Musculoskeletal Diagnoses	Deeper affective bond formed with encouragement translated into motivation and adherence.  Decreased severity of pain and less pain interference noted.

O'Keefe, Mary, et al. "What influences patient-therapist interactions in musculoskeletal physical therapy? Qualitative systematic review and meta-synthesis." *Physical Therapy* (2015).  
Bliss, Ethan Loper. "The roles of attachment, depression, and the working alliance in predicting treatment outcomes in chronic pain patients seeking physical therapy services." (2009).

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## Research Evidence continued

Patient Cohort	Findings
Intensive Care Unit Clinicians and Family Caregivers	Perceived social support associated with stronger therapeutic alliance.  Favorable descriptors included trust, communication, and respecting patient wishes.  Conflict with ICU care team correlated with low alliance.

Huff, Nidhi G., et al. "Therapeutic alliance between the caregivers of critical illness survivors and intensive care unit clinicians." *Annals of the American Thoracic Society* 12.11 (2015): 1646-1653.

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## Research Evidence continued

Patient Cohort	Findings
Athletes in Rehabilitation and Athletic Trainers	Trainers identified as primary providers of motivation and emotional challenge.  Misaligned expectations (high or low) and only seeing the negative identified as factors hindering rehab.

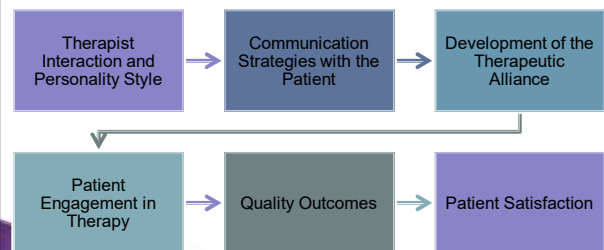
Ludewig, Annika B. "The Perceptions of Athletes and Athletic Trainers on the Motivation and Social Support of Injured Athletes During Rehabilitation." PhD diss., Ohio University, 2007.

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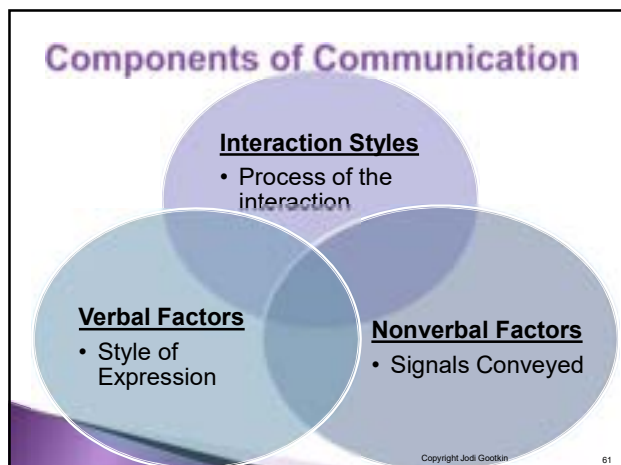
## The Big Picture

- An interplay between aspects of effective communication and the constructs of the therapeutic alliance to achieve improved outcomes and satisfaction.



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## Interaction Styles

<b>Information Gathering</b>	• Closed/Open Questions
<b>Patient Facilitating</b>	• Conversations and Transitions
<b>Patient Involving</b>	• Request Information and Clarifications
<b>Patient Supporting</b>	• Agreeing and Reassuring
<b>Information Giving</b>	• Patient Education and Instruction

Pinto, Rafael Zambelli, et al. "Patient-centered communication is associated with positive therapeutic alliance: a systematic review." *Journal of Physiotherapy* 58.2 (2012): 77-87.

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- ## Acknowledgement of Personal Circumstances
- Employing patient supporting, facilitating, and involving strategies encourages the affective bond.
  - Providing directions must be balanced with opportunities for patients to express their illness experiences.
  - Complementing self-report questionnaires with personal interviews aids in early identification of some diagnoses.
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- ## Shared Accountability
- Establishing a dialogue presents an opportunity for clinicians to encourage questions, provide explanations, and ask the patient's opinion.
  - Inappropriate interactions may contribute to limited improvement or exacerbation of patient symptoms.
  - Coaching can foster collaboration and shared accountability which translates into motivation with exercise compliance.
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## APTA PT Branding

	The Sage	The Hero
Known as	Coach/Teacher	Rescuer/Warrior
Delivers	Knowledge	Courage
Offers	Independence	Mastery
Focus	Understanding	Proving
Traits	Experts/Advisors	Motivates

## NATA AT Behaviors of Practice

- Demonstrate honesty and integrity.
- Exhibit compassion and empathy.
- Demonstrate effective interpersonal communication skills.

APTA "Branding campaign overview." 2010. Retrieved from <https://www.apta.org/BrandBeal/Overview/>  
National Athletic Trainers' Association (2006) Athletic Training Educational Competencies (4th ed.), Dallas, TX [https://www.nata.org/sites/default/files/guide\\_to\\_athletic\\_training\\_services.pdf](https://www.nata.org/sites/default/files/guide_to_athletic_training_services.pdf)

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## AOTA OT Branding

- ▶ Live life to its fullest
- ▶ Enjoy today
- ▶ Potential is our fuel
- ▶ Glass is full when working in harmony
- ▶ Maximize time with patients
- ▶ Do the best I can
- ▶ Remarkable accomplishments are possible

AOTA, Occupational Therapy brand toolbox. Retrieved 2016 from <http://www.aota.org/AboutAOTA/Centennial-Vision/Brand/Toolbox/Icons.aspx>

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## Discourse Theory

- ▶ *"The ways we think and talk about a subject influence the ways we act in relation to that subject."*
- ▶ Can become problematic with unintentional neglect of psychosocial factors and potential insensitivity.

Karlberg, Michael. "The power of discourse and the discourse of power: Pursuing peace through discourse intervention." *International Journal of Peace Studies* (2005): 1-25.

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## How Clinicians Describe Themselves

*People person*

*Believe in helping others*

*Like to see people improve*

*Enjoy making a difference in other's lives*

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## How Patients Describe Clinicians

*Superior Dictate  
Inflexible  
Pessimistic  
Hierarchical  
Disinterested  
Manipulative  
Detached  
Intimidator  
Restrictive  
Indifferent  
Cold*

Whalley Hammell, Karen R. "Client-centred practice in occupational therapy: Critical reflections." *Scandinavian Journal of Occupational Therapy* 20.3 (2013): 174-181.

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## Empathy

### Cognitive Empathy

Perspective Taking  
"I understand what you feel"

### Affective Empathy

Emotional Reaction  
"I feel what you feel"

Understand  
and Respond

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## Cognitive Empathy

- ▶ Consideration of the patient's preferences, feelings, or perspective of an intervention when determining plan of care.
- ▶ Reflection by the clinician aids in appropriate selection contributing to adherence, expectations, satisfaction.

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## Affective Empathy

- A parallel emotional experience to the patient which acknowledges their emotional state without experiencing it oneself.
- Goes beyond labeling emotions to recognizing how it feels to be experiencing the situation/circumstances the patient is in.

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## Demonstrating Empathy

- Infer the patient's thoughts and feelings using sensitivity to regulate your response.
- Interactions should convey appreciation of the pain and challenges the patient may be enduring.
- Repeating the same experience or story to multiple individuals may be an indicator the individual is seeking validation of their feelings.

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## Trust

- Patient trust in clinicians incorporates satisfaction, communication, competency, and privacy.
- Establishes a nonthreatening environment free from fear of judgement.

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## Benefits of a Trusting Relationship

- A sense of security to divulge concerns and feelings fosters unsolicited comments and honesty.
- This allows greater accuracy of information gathered in patient interviewing.

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## How to Establish Trust

- Be knowledgeable of the patient's condition and management techniques.
- Understand psychosocial impact on the patient.
- Emanate confidence in exchanging information.
- Display excellent listening skills.
- Remain objective.
- Refrain from disapproval or criticism.

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## Assessing Clinician Perspective

- Describe a situation or patient where you learned something new or realized something important concerning interaction.
- Do you think the interaction with patients is important in therapy?
- Are there factors that might disrupt good interaction with the patient?
- If you received a new colleague, what advice would you give them about how to achieve good interaction with a patient?

Gyllenstein, Amanda Lundvik, et al. "Interaction between patient and physiotherapist: a qualitative study reflecting the physiotherapist's perspective." *Physiotherapy Research International* 4.2 (1999): 89-109.

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## Identifying Your Personality Style

- Healthcare provider attitudes, values, and personality type can be facilitators of or barriers to the provision of patient centered rehabilitation.
- Personality self-assessment can provide insight into the existence of potential negative influencers.

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## BFI The Big Five Inventory

- This self report inventory measures the main domains of personality.
- There are very specific copyright restrictions for use of the tool. It is NOT public domain.
- It consists of short phrases with simple vocabulary to rate personality traits.

Horvath A, Greenberg L. Development and validation of the Working Alliance Inventory. *Journal Of Counseling Psychology* [serial online]. April 1989;36(2):223-233.

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## Interpreting the Big Five

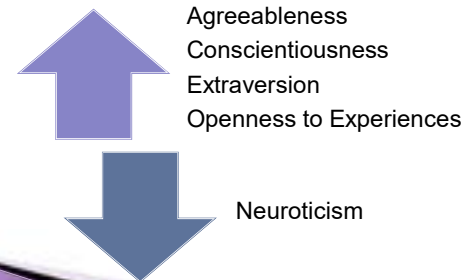
<b>Openness to Experiences</b>	Curious, broadminded, innovative
<b>Conscientiousness</b>	Reliable, organized, self-disciplined
<b>Extraversion</b>	Sociable, assertive, talkative
<b>Agreeableness</b>	Polite, cooperative, good-natured
<b>Neuroticism</b>	Nervous, high strung, temperamental

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## Clinician Tendencies

- Some consistency among studies as to common clinician personalities styles.



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## "Therapist Effect"

- Extrinsic factors such as experience and education do not appear to consistently influence patient outcomes.
- Intrinsic personality traits of the therapist may account for some of the variability in patient interaction and ultimately patient outcomes.

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## Patients with Chronic Disease

Population Patients with...	Therapist Personality Trait	Impact
Cerebrovascular Accident Rheumatoid Arthritis Osteoarthritis Fibromyalgia Parkinson's Disease COPD	High Neuroticism	Diminished Treatment Outcomes
	Low Neuroticism	Improved Outcomes

Buining, Elisabeth Margretha, et al. "Exploring physiotherapists' personality traits that may influence treatment outcome in patients with chronic diseases: a cohort study." *BMC Health Services Research* 15.1 (2015): 1.

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Population Patients with...	Therapist Personality Trait	Impact
<b>Anxiety and Mood Disorders</b>	Extraversion	Faster Symptom Reduction Short Term
	Cautious Non-intrusive	Greater Long Term Benefits

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<b>Caregiver Influence</b>		
Population Patients with...	Personality Trait	Impact
<b>Coronary Artery Bypass Graft and Their Family Caregiver</b>	Pre-surgical Caregiver Neuroticism	Post-surgical Patient Depressive symptoms
	Pre-surgical Patient Neuroticism	Post-surgical Patient Depressive symptoms

Ruiz, John M., et al. "Does who you marry matter for your health? Influence of patients' and spouses' personality on their partners' psychological well-being following coronary artery bypass surgery." *Journal of Personality and Social Psychology* 91.2 (2006): 255.

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## Burnout

*"emotional and physical exhaustion resulting from a combination of exposure to environmental and internal stressors and inadequate coping and adaptive skills."*

- Components include:
  - Emotional exhaustion
  - Depersonalization
  - Reduced personal accomplishment

burnout. (n.d.) Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health, Seventh Edition. (2003). Retrieved August 5 2016 from <http://medical-dictionary.thefreedictionary.com/burnout>

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## Associated Traits

- Neuroticism traits are associated with emotional exhaustion, low job satisfaction, and burnout.
- A weak association has been demonstrated between high agreeableness and conscientiousness scores and low job satisfaction.
- Inconsistent positive relationship between extraversion and job satisfaction.

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## Employing Patient Centered Communication

- Person First Language
- First Impressions – The Greeting
- Technical and Social Conversation
- Sandwich Feedback
- Open Ended Questions
- Cultural Awareness/Sensitivity

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## Patient Interviewing

- E • Establish Rapport
- C • Chief Complaint
- H • Health History
- O • Obtain Psychosocial Perspective
- W • Wrap-up
- S • Summary Of Performance

Boissonnault, Jill S., et al. "Reliability of the ECHOWS tool for assessment of patient-interviewing skill." *Physical Therapy* (2015).

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## Affective Verbal Communication

- ▶ Equal focus on the listener and speaker emphasizing the quality of the interaction.
- ▶ Emotional probes
- ▶ Reassurance and support
- ▶ Reflection of feelings
- ▶ Encouragement and acknowledgement

Intent

Behaviors

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## Instrumental Verbal Communication

- ▶ Content focused with sender directing conversation to accomplish intended goal or task
- ▶ Gathering information
- ▶ Advice and suggestions
- ▶ Potential to negatively impact patient motivation if over utilized.

Intent

Behaviors

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## Word Choice – Patient Expectations

### THINK

Predicted

What the patient believes will occur is most associated with outcomes.

### WANT

Ideal

Asking “what do you hope to get out of therapy” may not provide accurate information.

### SHOULD

Normative

Satisfaction with specific interventions is linked to this perspective.

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## Active Listening

- ▶ When patients have the opportunity to tell their story without interruption they feel valued by the therapist.
- ▶ Use acknowledgement and affirmation to recognize what the patient has expressed.
- ▶ Incorporate affirming nonverbal strategies.
- ▶ Don't allow yourself to be influenced by emotionally charged words.

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## Redirecting

- ▶ Tendency may be to allow our conceptual frameworks to drive discussions with frequent redirection of patient.
- ▶ Allowing patients to share their personal feelings and experiences deepens the bond through the emotional support and interaction provides.

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## Yarning

- ▶ An ethnographic semi-structured interview technique to establish rapport through informal and relaxed discussion.
- ▶ Participants “journey together visiting places and topics of interest relevant” to the topic.
- ▶ May aid in avoiding negative consequences of misunderstanding, disempowerment, or mistrust when interacting with different cultures.

Bessarab, Dawn, and Bridget Ng'andu. "Yarning about yarning as a legitimate method in Indigenous research." (2010).

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## Paraverbal Cues

- Content: WHAT is being said
- Delivery: MANNER it is presented
- Tone – pitch and emotion
- Inflection – tone variance
- Pace – rate
- Volume
- Silence

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## Roles of Nonverbal Cues

### Repetition

- Reinforce verbal message

### Accenting

- Emphasize a component of the verbal message

### Complementing

- Enhance meaning of the verbal message

### Substitution

- Replace the verbal message

### Contradiction

- Opposing message compared to words

Wertheim, Edward G. "The importance of effective communication." Illinois: Northeastern University (2008).

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## Real or Fake Smile?

- Reading nonverbal cues can be challenging as we may assign incorrect emotions.

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## Nonverbal Strategies to Employ

- Matching positive non-verbal signals to the verbal message enhances patient comfort.
  - Mutual Eye Gaze
  - Head Nodding
  - Smiling
  - Leaning
  - Open Body Language
  - Asymmetrical Body Postures
  - Deliberate Gesturing

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## Nonverbal Strategies to Avoid

- Symmetrical Arm and Leg Posture
- Crossed Legs
- Body Orientation Away from Patient
- Staring
- Looking Down or Away

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## Touch

### Instrumental

- Specific technique or intervention performance

### Affective

- Demonstrates support and emotional connection
- Comforting or disrespectful?
- Encourage risk taking

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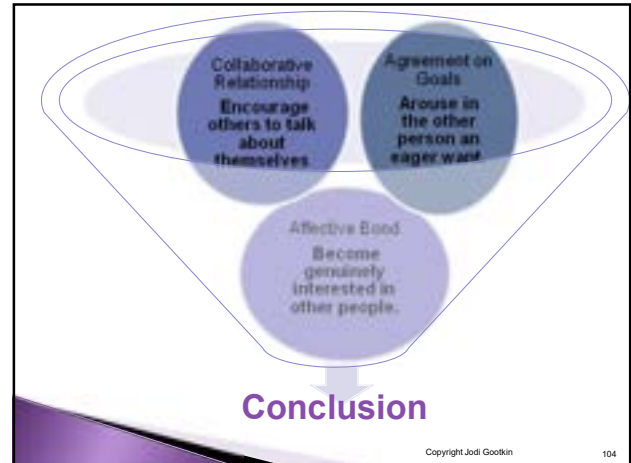
## Breaking the Tension

- Mirroring body language implies harmony and makes the patient feel relaxed and comfortable.
- When struggling with self confidence or stressed, adopt a power pose.

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1. Clinicians must consider this factor when developing treatment goals to maximize outcomes:

- A. Patient definition of recovery
- B. Individual client expectations
- C. Patient trust in healthcare provider
- D. All of the above

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2. A common characteristic of clinicians recognized as experts in their field is:

- A. A least two decades of clinical practice
- B. Emphasis on patient empowerment
- C. Limited use of clinical reasoning
- D. Minimal use of theoretical knowledge

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3. Which term is defined as a “cooperative therapist-patient relationship”?

- A. Therapeutic Rehab
- B. Rehabilitation Relationship
- C. Productivity Pact
- D. Therapeutic Alliance

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4. Which of the following is NOT a core component of the therapeutic alliance?

- A. Transparency in billing
- B. Collaborative relationship
- C. Affective bond
- D. Agreement on therapeutic goals

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5. Which factor most significantly influences patient outcomes?

- A. Variety of interventions
- B. Client expectation of improvement
- C. Therapist-client relationship
- D. Therapist-physician interactions

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6. What is the correlation between therapeutic alliance and pain management outcomes?

- A. Inconsistent and positive
- B. Consistent and negative
- C. Inconsistent and negative
- D. Consistent and positive

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7. Quality of care definitions do not typically incorporate:

- A. Technical competence
- B. Subjective experience
- C. Patient safety
- D. Outcome achievement

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8. The most commonly utilized tool to measure therapeutic relationships is\_\_\_\_\_:

- A. Patient Practitioner Interaction Survey
- B. Working Alliance Inventory
- C. Communication Competency Inventory
- D. Subjective Outcome Analysis Tool

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9. Patient motivation may be negatively impacted if the clinician over utilizes \_\_\_\_\_.

- A. Instrumental talking
- B. Affective empathy
- C. Affirmative gesturing
- D. Open body language

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10. Complete this sentence to determine the patient's predicted expectations. "Upon discharge from therapy, what do you \_\_\_\_\_ achieve?"

- A. Hope to
- B. Want to
- C. Think you will
- D. Wish you will

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## References

- Adeogun, A., & Faezipour, M. (2025, January). Patient-Centric Paradigm: A Systems Thinking Approach to Enhance Healthcare. In *Healthcare* (Vol. 13, No. 3, p. 213). MDPI.
- Aminabee, S. (2024). The future of healthcare and patient-centric care: Digital innovations, trends, and predictions. In *Emerging Technologies for Health Literacy and Medical Practice* (pp. 240-262). IGI Global Scientific Publishing.
- Bajaj, A. (2025). Patient-Centered Communication: A Key to Effective Psychiatric Rehabilitation. *American Journal of Psychiatric Rehabilitation*, 28(1), 339-345.
- Cassidy, S., Solvang, Ø. S., Lintvedt, O. K., Solvoll, T., & Granja, C. (2022). Assessing Methods to Model Patient-Centric Care Pathways across Multiple Healthcare Systems. In *Proceedings from the Fourteenth International Conference on eHealth, Telemedicine, and Social Medicine, Porto Portugal* (p. 5).
- Chibuike, M. C., Grobbelaar, S. S., & Botha, A. (2024). Overcoming challenges for improved patient-centric care: A scoping review of platform ecosystems in healthcare. *Ieee Access*, 12, 14298-14313.
- Click, B., Cross, R. K., Regueiro, M., & Keefer, L. (2024). The IBD Clinic of Tomorrow: Holistic, patient-centric, and value-based care. *Clinical Gastroenterology and Hepatology*.
- Ebrahimi, Z., Patel, H., Wijk, H., Ekman, I., & Olaya-Contreras, P. (2021). A systematic review on implementation of person-centered care interventions for older people in out-of-hospital settings. *Geriatric Nursing*, 42(1), 213-224.
- Ekman, I., Ebrahimi, Z., & Olaya Contreras, P. (2021). Person-centred care: looking back, looking forward. *European journal of cardiovascular nursing*, 20(2), 93-95.
- Engle, R. L., Mohr, D. C., Holmes, S. K., Seibert, M. N., Afafe, M., Leyson, J., & Meterko, M. (2021). Evidence-based practice and patient-centered care: doing both well. *Health care management review*, 46(3), 174-184.
- Feldthusen, C., Forsgren, E., Wallström, S., Andersson, V., Löfqvist, N., Sawatzky, R., ... & J. Ung, E. (2022). Centredness in health care: a systematic overview of reviews. *Health Expectations*, 25(3), 885-901.
- Foster, E. R., Carson, L. G., Archer, J., & Hunter, E. G. (2021). Occupational therapy interventions for instrumental activities of daily living for adults with Parkinson's disease: A systematic review. *The American Journal of Occupational Therapy*, 75(3).
- Fuggle, N., Bere, N., Bruyère, O., Rosa, M. M., Prieto Yerro, M. C., Dennison, E., ... & Reginster, J. Y. (2022). Management of hand osteoarthritis: from an US evidence-based medicine guideline to a European patient-centric approach. *Aging clinical and experimental research*, 34(9), 1985-1995.
- Grover, S., Fitzpatrick, A., Azim, F. T., Ariza-Vega, P., Bellwood, P., Burns, J., ... & Ashe, M. C. (2022). Defining and implementing patient-centered care: an umbrella review. *Patient education and counseling*, 105(7), 1679-1688.
- Hickmann, E., Richter, P., & Schlieter, H. (2022). All together now—patient engagement, patient empowerment, and associated terms in personal healthcare. *BMC health services research*, 22(1), 1116.
- Ibeh, C. V., Elufioye, O. A., Olorunsogo, T., Asuzu, O. F., Nduubuisi, N. L., & Daraojimba, A. I. (2024). Data analytics in healthcare: A review of patient-centric approaches and healthcare delivery. *World Journal of Advanced Research and Reviews*, 21(02), 1750-1760.
- Kaur, J. (2024). Insightful Visions: How Medical Imaging Empowers Patient-Centric Healthcare. In *Future of AI in Medical Imaging* (pp. 42-57). IGI Global.
- Kaur, J. (2024). Patient-centric AI: Advancing healthcare through human-centered innovation. In *Approaches to Human-Centered AI in Healthcare* (pp. 1-19). IGI Global.
- Kwame, A., & Petrucka, P. M. (2021). A literature-based study of patient-centered care and communication in nurse-patient interactions: barriers, facilitators, and the way forward. *BMC nursing*, 20(1), 158.
- Lee, K. H., Lee, J. Y., & Kim, B. (2022). Person-centered care in persons living with dementia: A systematic review and meta-analysis. *The Gerontologist*, 62(4), e253-e264.

- Mire-Sluis, A., Dobbins, J., Moore, C. M., Pepper, T., Rellahan, B., Riker, K., ... & Schultz, T. (2024). Patient-centric quality standards. *Journal of Pharmaceutical Sciences*, 113(4), 837-855.
- Nairn, B., Bamio, D., & Koochi, N. (2025). Refining the TeleRehabilitation Decision Support System for stroke patients: a patient-centric approach. *Physiotherapy*, 126.
- Nembhard, I. M., David, G., Ezzeddine, I., Betts, D., & Radin, J. (2023). A systematic review of research on empathy in health care. *Health services research*, 58(2), 250-263.
- Nieroda, M., Catalina, C., & Vernon, B. (2024). Patient-Centric Innovation: A Roadmap to Transforming Healthcare Systems. *Marketing Review St Gallen*.
- NR, R., BS, S., KU, A., HK, C., SM, D., HS, K., & BS, K. K. (2024). Effectiveness Of Patient-Centric Care Models In Improving Health Outcomes And Operational Efficiency In Hospitals. *Frontiers in Health Informatics*, 13(3).
- Oyeniyi, J. (2024). The role of AI and mobile apps in patient-centric healthcare delivery. *World Journal of Advanced Research and Reviews*, 22(1), 1897-1907.
- Peyroteo, M., Ferreira, I. A., Elvas, L. B., Ferreira, J. C., & Lapão, L. V. (2021). Remote monitoring systems for patients with chronic diseases in primary health care: systematic review. *JMIR mHealth and uHealth*, 9(12), e28285.
- Rai, B. K., Fatima, S., & Satyarth, K. (2022). Patient-centric multichain healthcare record. *International Journal of E-Health and Medical Communications (IJEHMC)*, 13(4), 1-
- Ranjan, R., & Ch, B. (2024). A comprehensive roadmap for transforming healthcare from hospital-centric to patient-centric through healthcare internet of things (IoT). *Engineered Science*, 30, 1175.
- Rehman, M. A. U., Emerson, K., Merker, V. L., Young, M., Lin, D. J., & Zafar, S. F. (2025). A patient-centric approach to neuro-recovery after acute brain injuries. *Journal of Clinical Neuroscience*, 135, 111158.
- Renouf, T., Bates, A., Davis, J. F., & Jack, S. (2022, October). Prehabilitation. An interdisciplinary patient-centric conceptual framework. In *Seminars in Oncology Nursing* (Vol. 38, No. 5, p. 151329). WB Saunders.
- Roberts, G. P., Levy, N., & Lobo, D. N. (2021). Patient-centric goal-oriented perioperative care. *British Journal of Anaesthesia*, 126(3), 559-564.
- Roy, S., Prasanna Venkatesan, S., & Goh, M. (2021). Healthcare services: A systematic review of patient-centric logistics issues using simulation. *Journal of the Operational Research Society*, 72(10), 2342-2364.
- Tan, E. W., & AO, C. M. S. (2025). A review of patient-centred measures in breast cancer care and impact on care efficiency. *Australian Health Review*, 49(2), 1-10.
- Tapuria, A., Porat, T., Kalra, D., Dsouza, G., Xiaohui, S., & Curcin, V. (2021). Impact of patient access to their electronic health record: systematic review. *Informatics for Health and Social Care*, 46(2), 194-206.
- Vakulenko, D. V., Palagin, O. V., Sergienko, I. V., & Stetsyuk, P. I. (2024). Algorithmization and Optimization Models of Patient-Centric Rehabilitation Programs. *Cybernetics and Systems Analysis*, 60(5), 736-752.
- Vats, K. (2024). Navigating the digital landscape: embracing innovation, addressing challenges, and prioritizing patient-centric care. *Cureus*, 16(4).
- Wolff, A. C., Dresselhuis, A., Hejazi, S., Dixon, D., Gibson, D., Howard, A. F., ... & Edwards, L. (2021). Healthcare provider characteristics that influence the implementation of individual-level patient-centered outcome measure (PROM) and patient-reported experience measure (PREM) data across practice settings: a protocol for a mixed methods systematic review with a narrative synthesis. *Systematic reviews*, 10(1), 169.