

Rehabilitation Reasoning

UNIT 1

Introduction

The successful functional global world are enhancing day by day through the innovation and utilization of new technology whereas it also giving new and challenging health hazards which leads to prone different kinds of impairment, disability and handicapped. Last century the world were busy to manage the communicable disease but now a days the non-communicable disease also making burden so that its making the double burden of health problem. The health and rehabilitation professionals like physician, physiotherapists, occupational therapists, speech therapists, counsellor etc. and the combined social effort can help to manage the next generation double burden. If it's failed to manage it properly then the health hazards make new dimensions problem that will not be good for the nation.



Time needed to finish this unit

Approximately 6 weeks

Lessons of this unit

Lesson 1: Basics of Disability, Rehabilitation and Rehabilitation Promotion

Lesson 2: Basics of Rehabilitation Reasoning

Lesson 3: Process of Clinical or Rehabilitation Reasoning

Lesson 4: Process of Effective Reasoning and Reasoning Requirements

Lesson 5: Narrative Reasoning and Reasoning Cycle

Lesson 1: Basics of Disability, Rehabilitation and Rehabilitation Promotion



Learning Objectives

On completion of this lesson the learner will be able to—

- understand different disability and Rehabilitation related terminology.
- acquire knowledge about health and rehabilitation promotion.

	Keywords	Disability, Impairment, Handicap, Rehabilitation
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Subject-matter

There are some peoples in our society whose have problem(s) in their body which limit or restrict them normal functioning as does by a normal individual. To overcome this problem (s), they need rehabilitation in our society through intervention.

1.1.1 Background

Disability is a complex issues which does not only the health issues but also the reflection of person's body and social issues where they live. If not possible to manage the environmental and social barriers it will be incomplete for disability management.

People with or without disability has no difference of basic needs. They may need in modified form. As for example, they need immunization, treatment, services and supports. Due to problem in health, poverty and social exclusion, the people with disabilities face barriers in accessing rehabilitation services they need in many settings.

Impairment: The loss or abnormality of anatomical, physiological, psychological and functional aspect temporarily and/or permanently is called impairment.

Disability: Due to impairment when it happens any restriction or decrease the ability to perform an activity which usually done by normal human being, called disability.

Handicap: Handicap is the characteristics of resulting impairment and disability that prevents the participations from activity of daily living independently.

Differences among the terms "Impairment," "Disability," and "Handicap".

Cerebral Palsy (CP) example: David is a 4-yr.-old who has a form of cerebral palsy (CP) called spastic diplegia. David's CP causes his legs to be stiff, tight, and difficult to move. He cannot stand or walk.

- ❖ **Impairment:** The inability to move the legs easily at the joints and inability to bear weight on the feet is impairment. Without orthotics and surgery to release abnormally contracted muscles, David's level of impairment may increase as imbalanced muscle contraction over a period of time can cause hip dislocation and deformed bone growth. No treatment may be currently available to lessen David's impairment.
- ❖ **Disability:** David's inability to walk is a disability. His level of disability can be improved with physical therapy and special equipment. For example, if he learns to use a walker, with braces, his level of disability will improve considerably.
- ❖ **Handicap:** David's cerebral palsy is handicapping to the extent that it prevents him from fulfilling a normal role at home, in preschool, and in the community. As he gets older, his handicap will be increased. Appropriate services and equipment can reduce the extent to which cerebral palsy prevents David from fulfilling a normal role in the home, school and community as he grows.

Learning Disability (LD) example: Cindy is an 8-year-old who has extreme difficulty with reading (severe dyslexia). She has good vision and hearing and scores well on tests of intelligence. She went to an excellent preschool and several different special reading programs have been tried since early in kindergarten.

- ❖ **Impairment:** While no brain injury or malformation has been identified, some impairment is presumed to exist in how Cindy's brain puts together visual and auditory information. The impairment may be inability to associate sounds with symbols, for example.
- ❖ **Disability:** In Cindy's case, the inability to read is a disability. The disability can probably be improved by trying different teaching methods and using those that seem most effective with Cindy.
- ❖ **Handicap:** Cindy already experiences a handicap as compared with other children in her class at school, and she may fail third grade. Her condition will become more handicapping as she gets older if an effective approach is not found to improve her reading or to teach her to compensate for her reading difficulties.

1.1.2 Rehabilitation

According to World Health Organization (WHO) Rehabilitation of people with disabilities is a process aimed at enabling them to reach and maintain their optimal physical, sensory, intellectual, psychological and social functional levels. Rehabilitation provides disabled people with the tools they need to attain independence and self-determination.

After a serious injury, illness or surgery, you may recover slowly. You may need to regain your strength, relearn skills or find new ways of doing things you did before. This process is rehabilitation.

Rehabilitation often focuses on-

- physiotherapy to help your strength, mobility and fitness;
- occupational therapy to help you with your daily activities;
- speech-language therapy to help with speaking, understanding, reading, writing and swallowing;

- treatment of pain.

Purpose of Rehabilitation

The purpose of rehabilitation is to restore some or all of the patient's physical, sensory, and mental capabilities that were lost due to injury, illness, or disease. Rehabilitation includes assisting the patient to compensate for deficits that cannot be reversed medically


1.1.3 Rehabilitation Promotion


Rehabilitation promotion is the process of enabling people to increase control over, and to improve their health. It moves beyond a focus on individual behaviour towards a wide range of social and environmental interventions.

Rehabilitation promotion or health promotion is the process of implementing a range of social and environmental interventions including promoting healthy behaviours, creating supportive environments and encouraging healthy public policies, enabling people to increase control over, and to improve, their health. Effective interventions may occur in settings such as workplaces, schools, clinics, and communities with partnership and capacity building across multiple sectors and diverse organizations.

Importance of Rehabilitation Promotion

- Improves the health status of individuals, families, communities, states, and the nation;
- Enhances the quality of life for all people;
- Reduces premature deaths;
- Reduces the costs (both financial and human) that individuals, employers, families, insurance companies, medical facilities, communities, the state and the nation would spend on medical treatment.

	Learner's Activity	Differentiate among impairment, disability and handicap with examples.
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	Summary
Impairment is the anatomical or functional loss or abnormalities, disability is the restriction of activities due to impairment which usually done by normal human being whereas the handicap is the characteristics which prevent the activities of daily living due to impairment and disability.	

 **Study Skills**

Multiple choice questions

Tick (✓) the correct answer

1. Impairment is a problem in-

- a. Society
 - b. Environment
 - c. Body function
 - d. Family.
2. Rehabilitation provides tools to disabled people for-
 - a. Independence
 - b. Motivation
 - c. Limitation
 - d. Employment.

 3. Which one is the example of handicap-
 - a. Difficulty in hearing
 - b. Difficulty in reading
 - c. Wheel chair person are not going to market
 - d. All of the above.

Short Questions

1. Define Impairment, Disability and Handicap with example.
2. Briefly describe the term Rehabilitation relates to disability.
3. Define Rehabilitation Promotion.
4. What are the importance of Rehabilitation Promotion?

Lesson-2: Basics of Rehabilitation Reasoning



Learning Objectives

On completion of this lesson, the learners will be able to-

- understand the basics of clinical or Rehabilitation reasoning.
- acquire knowledge about the components of clinical or Rehabilitation reasoning.
- know about the impact of clinical or Rehabilitation reasoning in practice.

	Keywords	Rehabilitation Reasoning, component, impact in Practice
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Subject-matter

Clinical reasoning or rehabilitation reasoning is a complex process. To provide maximum client care, the rehabilitation professionals must be familiar with the process of rehabilitation reasoning and think critically in decision making.

1.2.1. Clinical or Rehabilitation Reasoning

Clinical or rehabilitation reasoning is the thinking and decision making process which occurs in clinical practice (Edwards et al., 2004). It is a process linking theory to practice where utilises present knowledge and past experiences in decision making (Mendez & Neufeld, 2003) such as treatment, management and care of patients (Banning, 2008). It assists the practitioner in justifying and explaining to patients the reasons behind the selected treatment plan.

Clinical reasoning is the process by which clinicians collect cues, process the information, come to an understanding of a patient problem or situation, plan and implement interventions, evaluate outcomes, and reflect on and learn from the process.

Clinical reasoning is “the sum of the thinking and decision-making processes associated with clinical practice”. During this process, the therapist analyses multiple variables contributing to the patient’s limited physical capacity (the ability to execute a task or action in a standard environment) and performance (what the patient can do in his or her own current environment).

1.2.2. Component of Clinical Reasoning

The key components of clinical reasoning are content knowledge and the cognitive processes of problem solving.

Clinical reasoning is the analysis of a clinical situation as it unfolds or develops. It requires the professionals to use cognitive and metacognitive processes.

- ❖ **Content knowledge:** Content knowledge generally refers to the facts, concepts, theories, and principles that are taught and learned in specific academic courses. It can be divided in two types: **Declarative knowledge** is related with facts, rules and strategies which can be learnt from lectures, texts and discussion whereas **procedural knowledge** is skill, such as learning how to measure blood pressure, performing cardiopulmonary resuscitation and clinical reasoning. To acquire procedural knowledge, learners need to be coached and given feedback.
- ❖ **Cognitive processes**
 - ✓ cognition is a process that allows for the interpretation of data, for making connections between ideas and for putting those ideas together to make a decision or achieve a goal;
 - ✓ Cognition process is the acquiring knowledge and understanding through thought, experience, and the senses;
 - ✓ Cognitive processes use existing knowledge and generate new knowledge;
 - ✓ Cognitive processes are the thinking processes based on the knowledge of aspects of client care.
- ❖ **Metacognitive processes:** Metacognition is the process of monitoring the progress of learning and thinking about one's own thinking and learning processes. There is a close relation between cognition (thinking and learning) and metacognition (thinking about thinking and learning). Metacognition means being aware of how cognition is occurring. Metacognition process helps the rehabilitation professionals to determine the most effective care plan in changing client's condition

Benner et al. (2010) describe the components of clinical reasoning to include-

- setting priorities;
- developing rationales;
- learning how to act;
- clinical reasoning-in- transition, and
- responding to changes in the client's condition.

It is also important to reflect on the care provided and the client's response.



Fig: Clinical Reasoning


1.2.3. Clinical reasoning and impact on practice


Teaching clinical reasoning also provides an excellent opportunity for clinicians to consider and review their own clinical reasoning pathways. Automation of clinical reasoning allows clinicians to undertake consultations in a timely and streamlined fashion but does so at the risk of missing critical information, and therefore the diagnosis, if care is not taken.

A different situation resulting in the same risk can arise for clinicians seeing a long-term patient and failing to consider alternate diagnoses other than those previously made in the patient. A diagnosis that could have been made with a careful history and physical examination in one consultation may end up taking two or three consultations and several unnecessary investigations to reach if differential diagnoses are not considered early.

The benefits of reflecting upon and improving one's own reasoning may include—

- improving time to diagnosis;
- avoiding assumptions;
- reducing unnecessary investigation and the costs these incur;
- Improving patient satisfaction and being branded with the 'good doctor' label.

	Learner's Activity	When metacognition is necessary?
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	Summary
Clinical reasoning is a logical thinking and decision-making process where a practitioner utilizes present knowledge and previous experiences to provide maximum services to client. To do so the practitioners need to know the components of clinical reasoning such as content of knowledge (theoretical and practical), thinking (cognition) and rethinking (metacognition) processes.	

	Study Skills
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Multiple choice questions

Tick (✓) the correct answer

1. Rehabilitation reasoning is the process of-
 - a.Lateral thinking
 - b.Social skills
 - c.Values education
 - d.Thinking and decision making.
2. Clinical reasoning of the disabled people is-
 - a.The proper treatment
 - b.The proper employment

- c. The proper rehabilitation
 - d. All of the above.
3. Cognitive skills are obtained through—
- a. Self experience
 - b. Colleague
 - c. Friends
 - d. family.

Short Questions

1. Define Clinical or Rehabilitation Reasoning.
2. What are the components of Clinical or Rehabilitation Reasoning?
3. Describe Clinical or Rehabilitation Reasoning impact on practice.

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Lesson-3: Process of Clinical or Rehabilitation Reasoning



Learning Objectives:

On completion of this lesson learners will be able to-

- understand the process of Clinical or rehabilitation reasoning.
- steps of Clinical or rehabilitation reasoning process.



Keywords

Clinical reasoning, Inductive process, deductive process, Hypothesis



Subject-matter

There are many steps in clinical reasoning process. Therapist and patient should work closely to gather information. On the basis of information, suitable hypothesis will be developed for clinical intervention with maximum outcomes.

1.3.1 Process of Clinical or rehabilitation reasoning

- ❖ The process of Clinical or rehabilitation reasoning occurs throughout the physiotherapists' or health professionals interaction with the patient and significant others (care givers, health team members) where treatment plans and management strategies are devised, based on clinical data, knowledge, experience, patient choice and professional judgement (Higgs & Jones, 2000).
- ❖ The process entails choosing a particular treatment intervention over all possible options and continues throughout ongoing patient management (Jones, Jensen & Edwards, 2000).

A diagram of the clinical reasoning framework is shown in figure as below. In this diagram the cycle begins at 1200 hours and moves in a clockwise direction. The circle represents the ongoing and cyclical nature of clinical interventions and the importance of evaluation and reflection. There are eight main steps or phases in the clinical reasoning cycle. However, the distinctions between the phases are not clear cut. While clinical reasoning can be broken down into the steps of: look, collect, process, decide, plan, act, evaluate and reflect, in reality, the phases merge and the boundaries between them are often blurred. While each phase is presented as a separate and distinct element in this diagram, it is important to remember that clinical reasoning is a dynamic process and health care providers often combine one or more phases or move back and forth between them before reaching a decision, taking action and evaluating outcomes. It is also important that learners learn to recognise, understand and work through each phase, rather than making assumptions about patient problems and initiating interventions that have not been adequately considered. In another figure the phases of the clinical reasoning process are described in more details in the figure below.

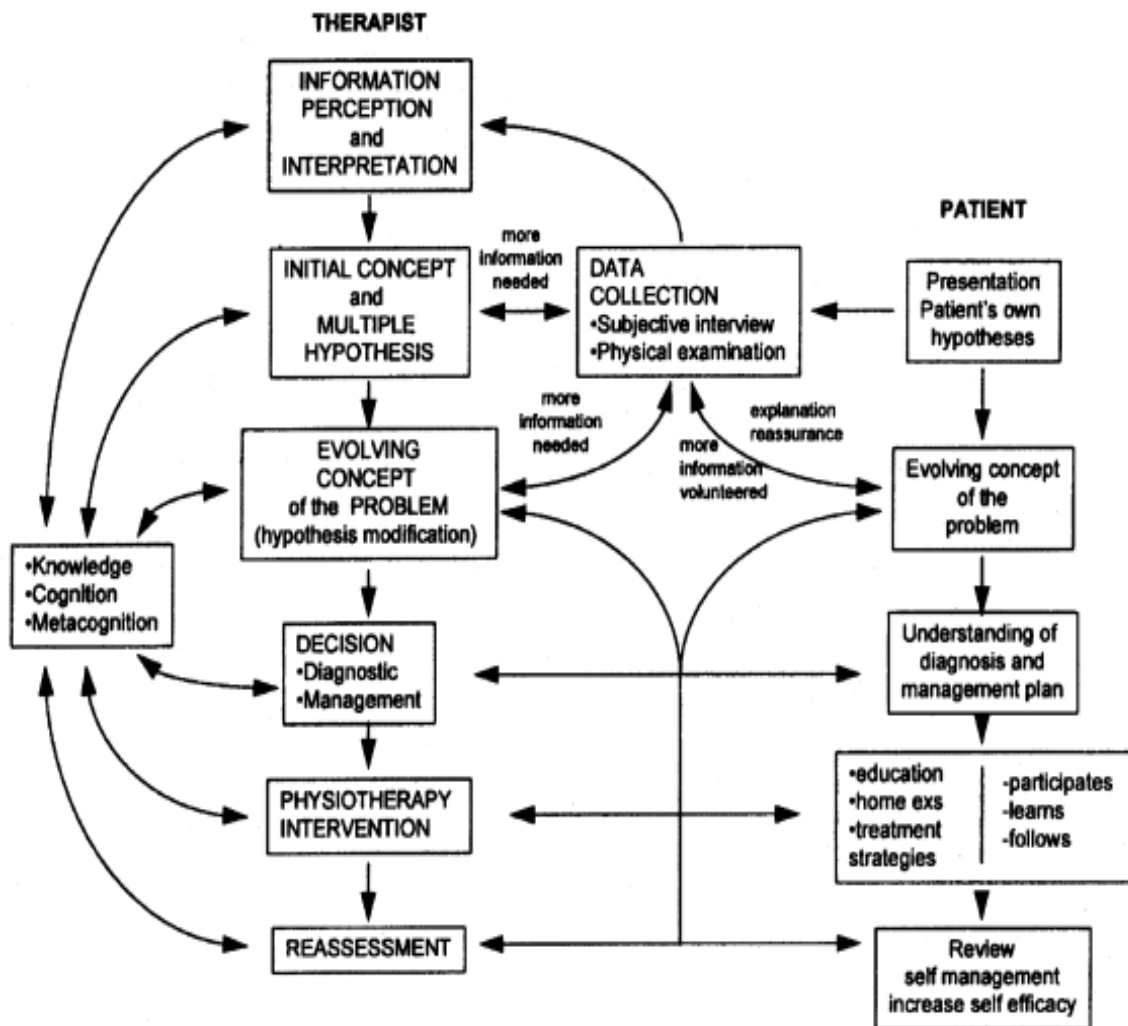


Figure 1.1: Clinical Reasoning Process with patient involvement

1.3.2. Detailed Steps in the Clinical Reasoning Process

1. Obtain and filter information

Information may be obtained primarily through reading, visual imagery, and listening. Other sensory input (e.g., tactile, olfactory) may be obtained.

2. Formulate an initial small set of hypotheses

This set of hypothesis is formulated in the context of identified questions and problems in the current case, as well as a knowledge base of prior cases (using schemas and pattern recognition).

3. Obtain additional information as directed by initial hypotheses

The initial small set of hypotheses forms a framework for additional focused information gathering. This process is repeated and refined. Novices and intermediates have more iterations of this process.

4. Use a reasoning strategy (deductive vs. inductive) to process the information in the clinical context of the case

- Deductive reasoning works from general to specific. In this case, hypotheses are developed to explain a case problem and apply collected information to test the hypotheses in order to confirm or exclude. In a hypothetical-deductive process goes in classical way; if - then - but - therefore (yes, no)
If we have certain information, then certain hypotheses may be true, but we test against further information, and therefore it is true or not. This is akin to the scientific principle, in which one tries to prove a hypothesis.
- Inductive reasoning works from specific to general. One starts with information from observations matched to an established pattern (algorithm) to come to a hypothesis. The hypothesis is then matched for fit to the problem in the case. Induction yields discoveries that are probable, but not proven. Inductive reasoning becomes powerful when an expert-derived algorithm is followed. The algorithms have been derived with statistical relevance to real cases.
- The human body is very complex, and we cannot obtain all information we want, so that regardless of the reasoning process utilized, we can never absolutely prove or disprove most hypotheses in many cases. We derive the 'most likely' diagnosis, but we may need to eventually consider others if more information becomes available or the outcome is different than expected.

5. Hypothesis

It is a tentative and formal prediction about the relationship between two or more variables in the population being studied, and the hypothesis translates the research question into a prediction of expected outcomes. So a hypothesis is a statement about the relationship between two or more variables that we set out to prove or disprove in our research study.

6. Employ abstract ideas and concepts that are interpreted and used effectively

Avoid concrete thinking (child-like, literal interpretation; can't generalize).

Avoid linear thinking (single un-branching series of cause and effect relationships).

7. Formulate a final diagnosis.

8. Test the final diagnosis

Test against positive and negative findings and standard criteria for description of a disease process.

Working diagnoses for patient prognostic or therapeutic recommendations are finalized only after they are assessed for their adequacy in explaining all positive, negative, and normal clinical findings.

The pathophysiologic reliability of the diagnosis is a check on the reasonableness of causal linkages between clinical events, ascertained from use of biomedical knowledge. Does the diagnosis fit with cause and effect? Is the diagnosis consistent with pathophysiologic principles?

9. Consider other possible diagnoses

To diminish the possibility of premature closure, assume your working diagnosis is incorrect and then consider alternative diagnoses.

10. Evaluate the process (Stop, Think, Act, Review).

11. Communicate the diagnosis.

12. Follow up

Clinical reasoning is improved when errors in information, judgment, and reasoning are discovered and discussed when reviewing the case. The quicker this happens, the greater the improvement.


1.3.3. Understanding the clinical reasoning process


The clinical consultation is the practical embodiment of the clinical reasoning process by which data are gathered, considered, challenged and integrated to form a diagnosis that can lead to appropriate management. The main components of a clinical consultation, when considered in this construct, include:

- a thorough but directed clinical history, with initial hypothesis generation and subsequent testing through specific questioning;
- selection of a primary diagnosis and differential diagnosis in order of likelihood;
- physical examination directed at gathering further data necessary to confirm or refute the hypotheses;
- thoughtful and critical selection of investigations to gather additional data;
- Implementation of a targeted and rationalised management plan.

The other more hidden aspects of this process is the weighting of evidence as provided by a patient:

- Is this piece of data important or irrelevant?
- Does this piece of data make the hypothesis more or less likely?
- How does the data interrelate with the other data already gathered?
- Which data is the most critical (both positive and negative)?

 Learner's Activity	Develop a suitable hypothesis for clinical intervention.
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 Summary <p>Clinical reasoning process is the choosing the most probable effective treatment intervention over all possible options. After collecting data from patient through interview and examination, the therapist will develop hypotheses for intervention. As human body is the most complex system and we cannot obtain all information what we want, so regardless of the reasoning process utilized, we cannot absolutely prove or disprove most hypotheses. So we have to select the most likely one and may need to consider others if more information becomes available or the outcome is different than expected.</p>



Multiple choice questions

Tick (✓) the correct answer

1. Clinical reasoning is done through-
 - a. politician
 - b. family member
 - c. health care professional
 - d. concern person
2. Inductive reasoning works from-
 - a. general knowledge
 - b. specific knowledge
 - c. general to specific knowledge
 - d. specific to general knowledge
3. Deductive reasoning works from-
 - a. general to specific knowledge
 - b. derived knowledge
 - c. specific to general knowledge
 - d. none of the above

Short Questions

1. Describe the process of Clinical or rehabilitation reasoning.
2. Briefly describe the Steps of Clinical or rehabilitation reasoning process.


Lesson-4: Process of Effective Reasoning and Reasoning Requirements



Learning Objectives:

On completion of this lesson the learners will be able to-

- understand the process of effective reasoning.
- reasoning requirements.

	Keywords Clinical reasoning, Teaching technique, Professional knowledge
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Subject-matter

There are many techniques of teaching clinical reasoning to the learners. Effective clinical reasoning depends not only on the professional knowledge of the practitioners but also some aspects of patients.

1.4.1 Ways of Teaching Clinical Reasoning

We believe that one of the most effective ways to teach clinical reasoning is for experts to explain to their juniors how they are thinking during problem solving by using the ‘talk aloud’ technique. Learners should be taught to practise abstract summaries and use them to tap into their knowledge. They should be reminded that basic science knowledge can sometimes help in making a diagnosis. Encouraging comparisons with similar presentations helps learners widen their differential diagnosis. Although learners use intuition less often, they need to be aware of this process and its pitfalls for novices. In turn, teachers should ask learners to explain how they are thinking when making a diagnosis. In this way, conclusions can be drawn about the learners’ reasoning processes. Some teaching techniques can be used to complement the development of clinical reasoning skills outside of the clinical environment. For example, case-based teaching encourages learners to discuss real clinical situations. As case information becomes available and the case gradually unfolds, the opportunity to demonstrate clinical reasoning becomes apparent. Case reports if structured appropriately can be used to help learners practise clinical reasoning skills by encouraging them to discuss how they arrived at a diagnosis. Virtual patients are computer simulations that allow learners to practise making decisions comparable with actively managing a patient in real life. They cannot replace real patients but can be of great assistance in learning and practising clinical reasoning. A hybrid of the standard linear and branching designs has been specifically designed for use with medical learners.

How will reasoning be effective?

Effective clinical or rehabilitation reasoning is dependent upon the extent of the practitioner’s professional knowledge (Anadajothi, 2000) and can be defined as being propositional knowledge or non-propositional knowledge (Rycroft-Malone et al., 2004). Propositional knowledge is gained through theoretical and research knowledge i.e., reading textbooks and journals, and may be acquired

from previous clinical placements. Non propositional knowledge is obtained through experience and consists of craft, tacit and practical knowledge (Higgs & Tichen, 2000). Over time, it is possible for a learner to develop propositional knowledge into non-propositional knowledge and this helps to implement clinical reasoning within a clinical setting (Higgs & Jones, 2000).

1.4.2. Reasoning Requirements

Practitioners are required to determine the most suitable reasoning processes for individuals, taking into consideration the context of the patient's situation and environment (Edwards, Mayer & Jones, 2005). Banning (2008) states that therapists require an adequate in-depth knowledge and experience in the relevant aspects of physiotherapy in which they work, in order to make sound clinical decisions. However, practitioners' decisions may be influenced by a number of factors; the values and beliefs of the patient and physiotherapist, the knowledge, interpersonal skills and practical skills of the physiotherapist, the patient's physical, psychological, social and cultural issues, and also the environment in which treatment occurs (Jones, Jensen & Edwards, 2000).

Responses from educators that can be used to encourage, facilitate and promote effective clinical reasoning

- Let's explore this;
- Let's think this through;
- Now let's consider all the possible options/solutions/outcomes;
- Show me how you came to that decision;
- Walk me through your thinking about this;
- That is one option; let's explore some others;
- What are some possible outcomes of this approach?
- That is a good thought/answer/response/idea-let's expand on it.
- Let's consider some alternatives;
- Let's figure this out;
- Tell me about what you've learnt so far;
- Great question!
- Where would we find the answer to that?
- Let's try that one again;
- Why don't you lead us through that process?
- It's not just about the right answer it's about learning the process;
- Good try-have another go.
- Now that you've worked that out let's try-
- OK. You are on the right track. Let's try something a little more challenging now;
- Have you considered what could happen if...
- That is correct in this situation and for this person but what if ...
- What do you think about ...
- How do you know that to be true ... on what do you base your answer?



Learner's Activity

Write down the advantages and disadvantages of each clinical reasoning teaching technique.



Summary

A learner can learn clinical reasoning through a number of ways such as problem solving, case-study, presentation, simulation, demonstration etc. In each case, the learner needs to learn basic science first. Definitely educator will give guide to the learner in learning process. Effective clinical reasoning depends on the extent of propositional (theory and research) and non-propositional (experience) knowledge of practitioners. Considering individual patient's situation and environment, the practitioner should determine the most suitable clinical reasoning process.



Study Skills

Multiple choice questions

Tick (✓) the correct answer

1. Effective clinical reasoning depends on-
 - a. government activity
 - b. family's economy
 - c. practitioner's professional knowledge
 - d. all of the above factors.
2. Propositional knowledge is obtained from-
 - a. text book
 - b. journal
 - c. newspaper
 - d. Theory and research.
3. Non propositional knowledge is obtained from-
 - a. book
 - b. family
 - c. journal
 - d. experience.

Short Questions

1. What are the ways of effective reasoning in practice?
2. What are the requirements of clinical or rehabilitation Reasoning?

Lesson-5: Narrative Reasoning and Reasoning Cycle



Learning Objectives

On completion of this lesson, the learners will be able to-

- understand about narrative reasoning.
- acquire knowledge about reasoning cycle.

	Keywords	Narrative reasoning, reasoning cycle, Prospective stories
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Subject-matter

Narrative reasoning through considering patients' life history and memorable events in their life are important to occupational therapists. On the basis of narrative reasoning, therapists will set up the prospective goal of the patients. To do so, therapists need to follow rehabilitation reasoning cycle.

1.5.1. Narrative Reasoning

Definition and basics description: Narrative reasoning enabled some one to identify Edith's negative attitude towards physiotherapy. Barron, Moffett & Potter (2007) state that attitudes are built upon beliefs regarding an experience in an individual's life; Edith's husband had recently had an unsuccessful total hip replacement and she blamed the lack of physiotherapy input for the failure of his operation. She had very little trust and faith in the physiotherapy profession, and believed that her ankle would remain "poorly" forever, like her husband's hip.

Edwards et al., (2004a) and Edwards, Mayer & Jones (2005) propose that patients' narratives should be considered when planning treatment interventions, as an individual's identified experiences, beliefs, emotions and attitudes can potentially affect the progress and outcome of treatment. It is important to provide the most appropriate intervention for the patient, as this could possibly influence their beliefs, resulting in an individual's change in attitude (Barron, Moffett & Potter, 2007).

- Telling and interpreting stories;
- Stories help to frame decisions about what to do;
- Necessary to interpret the actions of others and to respond appropriately to the social context;
- Capacity to 'read other minds' i.e. to make accurate inferences about motives and intentions of others based on their observable behaviour and the social situation in which they act. (Bruner 1986,1996);
- Allows people to comprehend a complex flow of action and to act appropriately within it...narrative thinking is the very process we use to understand the social life around us

(Carruthers 1992).

- When Occupational Therapists reason narratively, clinical problems and treatment activities are organised in their minds as
 - an unfolding drama
 - cast of characters
 - Motives – inferred or examined
- Narrative reasoning is a central mode of clinical reasoning in occupational therapy. Therapists reason narratively when they are concerned with disability as an illness experience, that is, with how a physiological condition is affecting a person's life;
- Narrative reasoning concerns the relationship among motives, actions, and consequences as they play out in some specific situation;
- It involves a search for the precise motives that led to certain key actions and for how those critical actions produced some further set of consequences;
- Effective treatment depends upon highly motivated patients as they need to become highly committed participants in the rehabilitation process;
- Presents challenge of how to foster a high level of commitment in patients;
- Narrative reasoning helps to design a treatment approach which will appeal to a particular patient.

1.5.2. Prospective Stories: Therapy stories and life stories

- The therapists 'see' a possible and desirable future for the patient and imagine how they might guide treatment to bring about such a future;
- The therapy story is part of the larger life story;
- Task is to help patients link their past to a present and to a future worth pursuing;
- Concerned with-
 - 'Who is this patient?' - past
 - 'What might motivate this particular patient in treatment?' Which treatment activities and goals would be most appealing and useful? – present
 - 'What life will this person be living once therapy is completed?' - future

1.5.3 Changing Shape of Prospective Stories

- Prospective stories are useful in giving a plausible starting point rather than in giving completely accurate predictions;
- Misfits between the prospective story and the experience of working with the patient leads to revision;
- Therapeutic interventions are redirected to be more in line with what is actually happening.

1.5.4. Clinical or rehabilitation Reasoning Cycle

The Clinical Reasoning Cycle requires health care professional to examine and discuss the steps in a clockwise direction to facilitate decision-making, enabling the clear formulation of a care plan (Levett-Jones, et al., 2010).

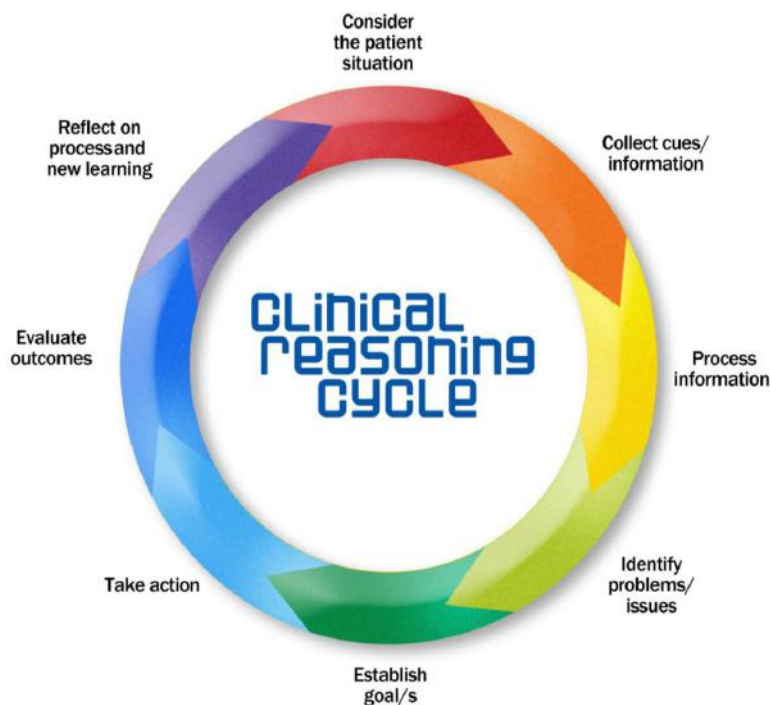




Fig. 1.2: Clinical or rehabilitation Reasoning Cycle

 Learner's Activity	Do a case study regarding narrative reasoning.
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 Summary	
<p>During planning prospective treatment intervention, the therapists should consider the patients' experience, beliefs, emotions, attitudes, culture, social issue, environment and important events in his/her life. Prospective treatment intervention should do following the steps in clockwise direction of clinical reasoning cycle. If the treatment/therapeutic intervention is misfitted between prospective intervention and final outcomes, the intervention should be directed in line with what is actually happening.</p>	

 **Study Skills**

Multiple choice question

Tick (✓) the correct answer

1. Narrative reasoning is the relationship among-
 - a. thinking, action and result
 - b. employing, motivating and result
 - c. motive , action and result

- d. None of the above.
- 2. Clinical reasoning cycle starts from the following steps-
 - a. evaluate outcome
 - b. establish goals(s)
 - c. process information
 - d. Consider the patient situation.
- 3. Who will determine the possible and desirable future of the patient-
 - a. family of the patient
 - b. society
 - c. therapist
 - d. All of the above.

Short Questions

- 1. Define Narrative Reasoning.
- 2. Briefly describe narrative reasoning with case example relates to disability.
- 3. Briefly describe clinical reasoning cycle.

DRAFT