Concept Development

Theoretical Basis for Nursing

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The concept of “concept”

Study Questions:

Discuss philosophical foundations of concept development

Determine the characteristics of concepts

Identify methods for concept development

The significance of concept to knowledge

- Promote the organization of experience
- Facilitate communication
- Enable the cognitive recall of phenomena

- Nursing views of concepts
  - Concepts are the "building blocks of theory."

Definitions of Concept

- Symbolic representations of the things or events of which phenomena are composed. (empirical reality)
- Concepts represent some aspect of reality that can be quantified.

- Concept is a mental image of reality (cognition)
- Concept is a word to which meaning has been attached through formal definition or common usage (language).

Concepts and empirical reality

- Jacox (1974):
  - "words that describe objects, properties, events, and relations among these are called descriptive terms or concepts,"
  - "a major task in the definition of concepts is to specify the part of the empirical world that they are intended to represent"
- Hardy (1974):
  - "labels, categories, or selected properties of objects to be studied….concepts are the dimensions, aspects, or attributes of reality which interest the scientist"
- Becker (1983):
  - "concepts arise in the mind of an individual as a result of attempts to make order out of that which is observed"
- Keck (1986):
  - "the subject matter of theory. They are symbolic representations of the things or events of which phenomena are composed. Concepts represent some aspect of reality that can be quantified.

Concepts and Cognition

- Emphasis on the mind and human thought
- Watson's (1979):
  - "a mental picture or a mental image, a word that symbolizes ideas and meanings and expresses an abstraction"
- Meleis (1997):
  - "evolving concepts result from early experiences;
  - (their definitions and meanings) reflect the theorists' educational background and the theoretical bases for their work"

Concepts and language

- Frege(1952)
  - A system of symbols that clearly represented concepts
- Wittgenstain (1921/1981)
  - Words symbolized actual objects, not mental images or thought
  - Language as a picture of reality

- Culture diverse

Philosophical view of concept

- Entity vs. dispositional view
  - Entity views
    - An abstract mental image or idea
    - A word
    - An external unitary form
    - An element in a system of formal logic
  - Dispositional view
    - habits or abilities to perform certain behaviors
    - Mental or physical act
    - Capability for word use

Aristotle's Essentialism

- the purpose of scientific inquiry was to identify the essence of things, the attributes of the individual natures which set each things apart from others
- In successive generalization, the mind moves from individual or particular objects or events to progressively broader categories of similar objects or events, focusing on the characteristics of common to all objects in the categories
- Concepts represent the essence of certain classes and are universally true of all members of a class

Cartesian Dualism

- Descartes and Locke
  - Concepts are ideas in some form that serve as the objects of human thought
  - Concepts are inherently private entities in that they reside exclusively in the individual
  - Ideas were derived from experience
- Kant
  - Concepts exist in the mind even prior to any experience and in fact actually made experience possible (the inner work to external reality)

Frege's realist approach

- The definition of a concept must be expressed as a set of necessary and sufficient conditions which have a sharp boundary. (not umbiguous)
- Concepts have an essence that is unchanging over time and across contexts

Pros and cons with entity theories

- Contributions
  - Concept is a clarification ward with reference, and the further development of language
- Problems
  - Many concepts may be unable to specify
  - A core of essence may not be possible in an a diverse group
  - Numerous situation are vague in conceptual category membership
  - Concept change over time and across contexts

Dispositional theories of concepts

Wittgenstein (1953/1968)

- rejected the requirements that concepts have rigid and distinct boundaries
- conceptualizations were based upon resemblances or commonalities in the use of a word or concept.
- Conceptual clarity is based on the ability to formulate comparisons, and efforts to clarify concepts were to be directed toward “seeing what is common” (p.34) in the use of a word, not toward uncovering and “essence.”

Dispositional theories of concepts

- Ryle
  - Concept is not a mere word, it is a means to express, a source of observable evidence of the concept.
  - Concept is an abstracted feature of the world and is directly related to the ability to perform certain tasks
  - The acquisition of a concept enables the management of a range of intellectual and conversational tasks that share common to the concept.
  - The clarification and elaboration of a concept improves abilities and new ways to functions effectively
  - The use of a word may be an outward manifestation of an individual's grasp of a concept.

Probabilistic dispositional view

- Defining characteristics that compromise a concept are not “essential” or “necessary and sufficient”. Instead, they are only demonstrating some degree of association with a concept. (no sharp boundary)
- There is a sufficient resemblance or a reasonable probability concerning the defining characteristics of a concept (Family resemblance)

The social context in “concept”

- The argument that concepts are at least somewhat public or social in nature raised questions about the role of social and other contextual factors in the use or development of concepts.
- Because life patterns and behaviors do vary across contexts in many respects, so the associated concepts are likely to vary as well. This observation has significant implications for methodology in regard to the clarification or development of concepts in nursing.
- Time The problem of time can be viewed as a problem of conceptual change or variation.

The evolution of concepts

- According to Toulmin, concepts possess "explanatory power" demonstrated by their utility in characterizing phenomena or situations of interest in the discipline.
- Through a process that entails continuing application of the concept and critical analysis of its contribution to problem solving, the concepts of the science can be altered, refined, or changed altogether, yielding a concept with continually improved content and "explanatory power."
- Concepts, therefore, are continually changed or refined, or new concepts are introduced to enhance the problem solving abilities of the discipline.
- Consequently, the process of concept development occupies a critical role in solving the problems relevant to a science.

Important effectors of a concept

- Concept is a private mental image as well as a public activity
- Somewhat public or social in nature
- Relevant contexts include culture and ethnic background, other social group, and even factors specific to different disciplines
- Time effect on conceptual change or variation

Conclusion

- Concepts are not absolute.
- Individual development of a concept is based on similarity or family resemblance rather than on a finite set of criteria
- Concept leaning and the ability to apply concept effectively are influenced by existing knowledge, theory, memory, general perspectives, and other cues or stimuli.
- Rodgers (1989)
  - There is a consensus that concepts are cognitive in nature and that they are comprised of attributes abstracted from reality, expressed in some form and utilized for some common purpose.

The characteristics of concepts

- A mental image about reality
- Its meaning has been attached through formal definition or common usage (language).
- Concept is developed through social interaction to work toward increasingly clear, useful and effective in problem solving.
- Concept may varies in different culture, ethnic social, and discipline groups. It may change with time.

Implications for concept development in nursing

- Concepts are cognitive in nature and they are comprised of attributes abstracted from reality, expressed in some forms and utilized for some common purpose.
- There are many approaches that researchers can use to develop concepts
- The selection of methods must be based on sound philosophical rational and appropriateness for the purpose of the study.

Approaches to develop concept

- First, as with any inquiry, a nurse researcher should identify the primary problems that are of interest prior to beginning a study for purposes of concept development.
- (A clear problem is important to ensure that the study is designed appropriately and results will be useful to alleviate the problem)
- Second, to identify the nature of the concept of interest
  - Physiological vs. psychological
  - Static vs. process concept
  - History of the concept

Work of concept analysis

- Identify and name the concept of interest
- identify surrogate terms and relevant use of the concept
- Identify and select an appropriate realm (sample) for data collection
- Identify the attribute of the concept
- Identify the reference, antecedents, and consequences of the concept
- Identify related concepts
- Identify a model case of the concept

Concept Development

Knowledge development

Strategies for synthesizing knowledge

Strategy	Purpose	Data source
Literature Review Integrative Meta-analysis Meta-enthonography Conceptual mapping	Knowledge synthesis/ aggregation	Literature
Concept Analysis	Identification, Clarification, Refinement of a concept	Literature; Empirical data Constructed cases

Literature review

- Integrative
- Meta-analysis
- Meta-enthonography
- Conceptual mapping

Purpose of a review

- to gain an in-depth understanding of a phenomenon by building on the work of others.
- important in concept development.
- Content
  - how the investigator organizes the search,
  - how the content of the literature is documented,
  - what methods are use to critically analyze each piece of the literature, and finally,
  - how the content is organized, synthesized, and presented.

Type of literature review

- Abbreviated reviews:
  - These reviews are narrowly focused around a discussion of the variables and empirical data in that specific study.
- Methodological reviews:
  - A methodological review is focused on critiquing the designs, methods, and analyses in a series of studies.
- Theoretical reviews:
  - These reviews usually propose models that describe the relationships among variables previously studied, and often propose new variables and relationships to investigate.

Type of literature review (cont'd)

- Critical reviews:
  - Not include original data but rather are interpretations of findings from different studies, include both a theoretical analysis and methodological critique of the research.
- Integrative reviews:
  - formulating a research problem that will guide the integrative review.
- Meta-Analysis:
  - to conduct an integrative review and, in addition, to determine the overall effectiveness of interventions using statistical analyses that combine the results of many independent studies

Concept development in the critical paradigm

- Goal
  - neither prediction and control, as in the positivist paradigm,
  - nor understanding, as in the naturalistic paradigm,
  - but rather critique and transformation.
- Examines and explores
  - the ways that concepts have been shaped by historical structures,
  - the overt and hidden meanings of the concept, and
  - dialogue and reflection about the potential within these meaning for injustice, exploitation, or constraints.
- A critical theory approach enables nurses to challenge traditional norms, in order to uncover hidden meanings and constraining sociopolitical barriers to optional health for all

QUESTIONS THAT GUIDE REVIEW PROCESSES

- How has the concept been defined by authors and what are the various theoretical perspectives that have been used to describe the concept?
- What work has already been done and what can be expanded?
- What relationships have been discovered between dimensions of this concept and other related phenomena?
- What research approaches (e.g., phenomenology, experimental) have been used to understand and study the concept?

Table 13-1 Process of Integrative Reviews and Meta-Analysis

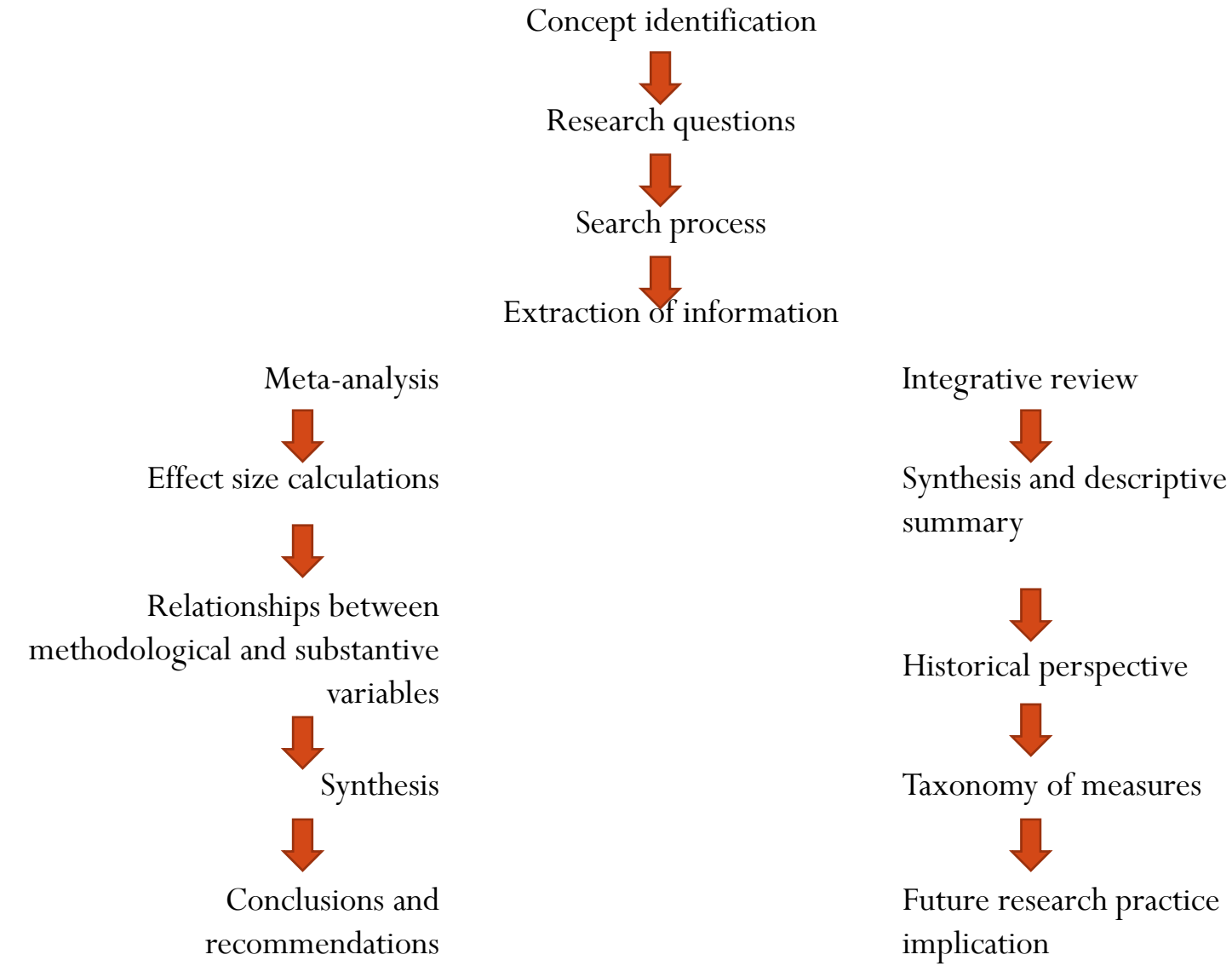


Table 13-5 Quality of study instrument

Elements and requirements	1 Low	2Med	3 High	0 Absent	NA
1.0 Introduction					
1.1 Justification for study					
1.2 Conceptual framework					
1.3 Critical review of issues					
1.4 Critical review of issues					
1.5 Methodological issues					
1.6 Hypotheses or study questions stated					
1.7 Operational definitions					
2.0 Methodology					
2.1 Design described					
2.2 Control of validity threats					
2.3 Sufficient sample size					
2.4 Representative sample					
2.5 Data collection procedures described					
2.6 Instrument validity described					
2.7 Instrument reliability described					
3.0 Data analysis and results					
3.1 Statistical treatment					
3.2 Data presentation					
3.3 Results related to problem and/ or hypotheses					
3.4 Findings are substantiated by methods used					
4.0 Conclusions/ Recommendations					
4.1 Discussion related to background and significance					
4.2 Conclusions logically derived from findings/ results					
4.3 Recommendations consistent with findings					
4.4 Alternate explanations advanced					

From smith, MC, & Stullenbarger, E. (1991). A prototype for integrative review and meta-analysis of nursing research. Journal of advanced nursing, 16(11), 1272

Synthesize findings

- Meta-analysis
  - a method that enables reviews to more closely approximate analytic methods of researchers who analyze data from primary (actual) sources.
- Meta-analysis : application statistical techniques to analyze the combined data from multiple studies and to examine relationships among substantive and methodological characteristics of the studies and their results.
- Meta-synthesis: analysis of findings from qualitative (Sandelowski, 1997).

Concept analysis

Approaches

Approaches to concept analysis

Chinn & Jacobs (1983, 1987)	Chinn & Kramer (1991)	Walker & Avant (1983, 1988)
From Wilson (1969)	From Wilson (1969); Walker & Avant (1988)	From Wilson (1969)
1. Identify concept 2. Specify aims 3. Examine definitions 4. Construct cases 5. Test cases 6. Formulate criteria	1. Select concept 2. Clarify purpose 3. Identify data sources 4. Explore context and values 5. Formulate criteria	1. Select concept 2. Determine aim of analysis 3. Identify all uses of concept 4. Determine defining attributes 5. Construct a model case 6. Construct additional cases 7. Identify antecedents and consequences 8. Define empirical referents

Morse(1995) argued this Wilson-derived methods are based on positivism and reductionism, often result in trivial and insignificant contributions to nursing's theoretical base.

Approaches to concept analysis

Rodgers (1989)	Sartori (1984)	Schwartz- Barcott & Kim (1986)
From Price (1953); Rorty (1979); Toulmin (1972); Wittgenstein (1968)	From Ogden & Richards (1946)	From Reynolds (1971); Schatzman & Strauss (1973); Wilson (1969)
1. Identify the concept of interest 2. Identify surrogate terms 3. Identify sample for data collection 4. Identify attributes of the concept 5. Identify references, antecedents, and consequences of concept 6. Identify related concepts 7. Identify a real-life model case 8. Conduct interdisciplinary and temporal comparisons	1. Reconstruct concept from existing knowledge 2. Select designating term (name) 3. Reconceptualize the concept Focuses on words, meaning and referents and the relationship (shown by figures) Concept mapping	1. Theoretical phase 2. Fieldwork phase 3. Analytical phase Hybrid approach

Selection of an approach

- Different approaches to concept analysis are geared to different purpose
- The rationale for using a particular strategy should be justified because it will help to clarify the approach and the nature of the phenomenon being explored in the synthesis activity

Future adventures in concept development

- Application and testing of the concept
- A discovery of new concepts and interrelationships among concepts
- Contextual variations and construction of concept, which points to need for discovery, critique, and deconstruction
- Alternate forms of expression, communication, and adoption of concepts
- Methodological advances consistent with these foci

Examples

Defining a concept in nursing

The concept of critical thinking in nursing

An Example

Defining, Teaching, Learning and Measuring Critical Thinking in Nursing: From Ideas to Words to Actions

M. Gaie Rubenfeld, RN, MS, Associate Professor

Eastern Michigan University

Ypsilanti, Michigan, USA

The critical thinking in nursing

- Critical thinking in nursing is an essential component of professional accountability and quality nursing care.
- Critical thinkers in nursing exhibit these habits of the mind: confidence, contextual perspective, creativity, flexibility, inquisitiveness, intellectual integrity, intuition, open-mindedness, perseverance, and reflection.
- Critical thinkers in nursing practice the cognitive skills of analyzing, applying standards, discriminating, information seeking, logical reasoning, predicting & transforming knowledge

批判性思考的定義

- 早期：T.H.I.N.K. Model (Rubenfeld & Scheffer, 1995, 1999)

  Used to teach beginning level students
  - T = Total Recall
  - H = Habits
  - I = Inquiry
  - N = New Ideas and Creativity
  - K = Knowing How You Think

以質性研究描述批評性思考的性質

- Fonteyn's (1998) Thinking in Practice (TIP) descriptive, "think aloud" study w/15 experienced RNs in practice conducted 1994-1995
- 12 Themes of Thinking Strategies
  - Recognizing a pattern
  - Searching for information
  - Making predictions
  - Stating a proposition
  - Making choices
  - Drawing conclusions
  - Setting priorities
  - Generating hypotheses
  - Forming relationships
  - Asserting a practice rule
  - Judging the value
  - Providing explanations

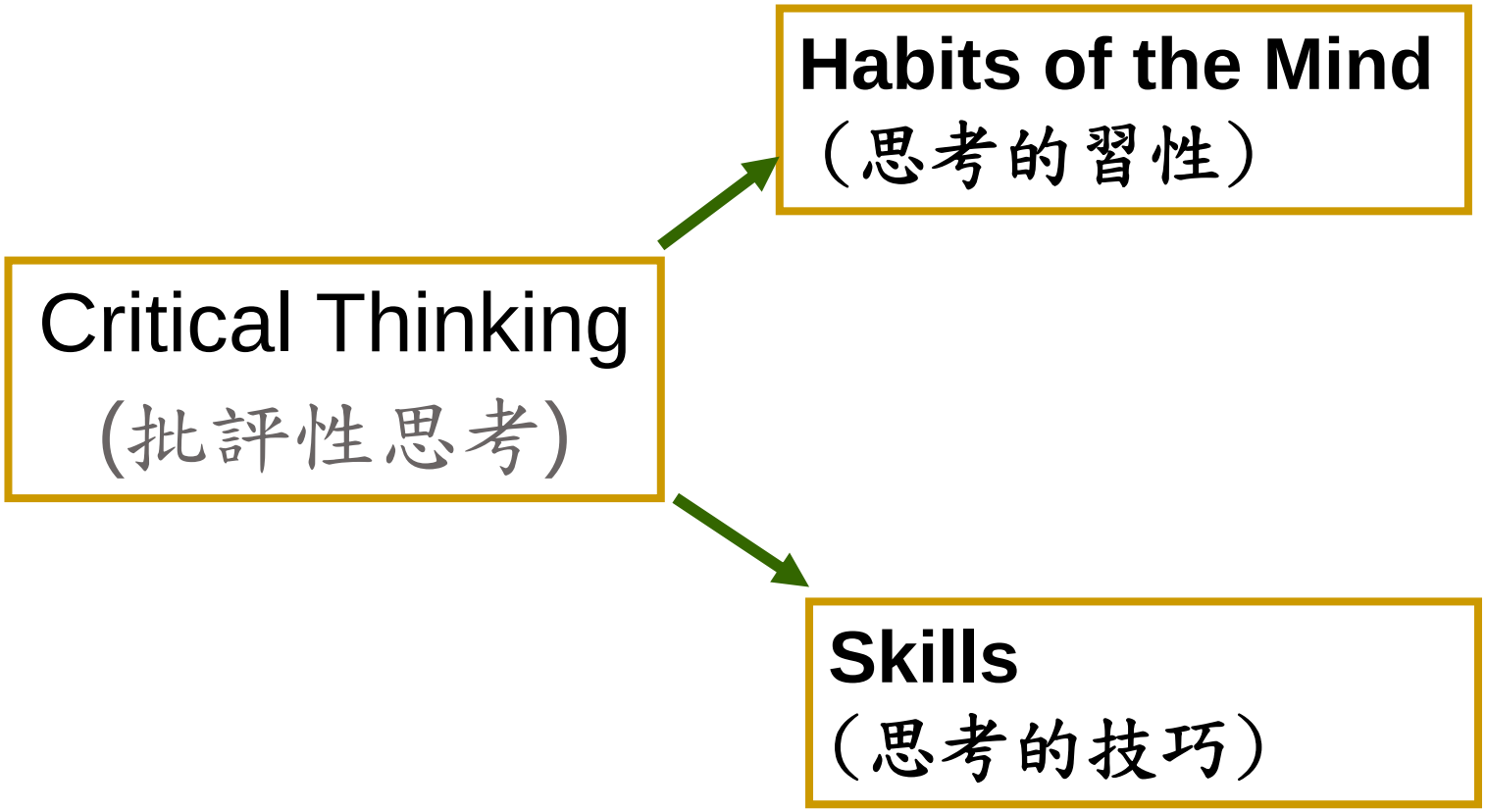
Delphi Study 探討CT 特性與定義

- 1995-1998 (Scheffer & Rubenfeld, 2000)
- 5 回合反覆詢問, "What skills and habits of the mind are at the core of CT for nursing in any setting?" …..至獲得最後共識
- 專家群: 55 nurses from education, practice and research
- 9 國家: Brazil, Canada, England, Iceland, Japan, Korea, Netherlands, Thailand, US (23 州)
- 此研究與 1990s Facione 為 American Philosophical Association類似

The Consensus Statement:

- Critical thinking in nursing is an essential component of professional accountability and quality nursing care.
- Critical thinkers in nursing exhibit these habits of the mind: confidence, contextual perspective, creativity, flexibility, inquisitiveness, intellectual integrity, intuition, open-mindedness, perseverance, and reflection.
- Critical thinkers in nursing practice the cognitive skills of analyzing, applying standards, discriminating, information seeking, logical reasoning, predicting & transforming knowledge.

Two dimensions of critical thinking



Nursing CT Habits of the Mind (思考的習性)

- **Confidence(自信)**:
  - 相信自己的理解能力
- **Contextual Perspective(整體觀)**:
  - 考慮整體狀況，關係背景環境與相關事件
- **Creativity(創意)**:
  - 產生、發現或重組靈感或想出變通方法的創意
- **Flexibility(彈性)**:
  - 能調整、適應或改變想法、念頭與行為的彈性（不固執）
- **Inquisitiveness(好奇心)**:
  - 藉觀察與思考熱烈尋找知識以了解更多可能情境之好奇心
- **Intellectual Integrity(智慧圓熟)**:
  - 以真誠追求真理，即使結果與原先信念或看法相悖
- **Intuition(直覺力)**:
  - 不需意識上之理解的洞察力
- **Open-mindedness(客觀包容)**:
  - 能接受相反意見也能察知自己偏見
- **Perseverance(毅力)**:
  - 追求結果過程不怕障礙
- **Reflection(反思)**:
  - 對一事務之自己的想法或作法尋求更深的了解並作評值

Nursing CT Skills(思考的技巧)

- **Analyzing(分析)**:
- **Discriminating(分別比較)**:
- **Applying standards(使用原則)**:
  - judging according to established personal, professional or social rules or criteria
- **Information seeking(找尋資訊)**:
  - identifying relevant sources and gathering objective, subjective, historical and current data from those sources
- **Logical reasoning(合乎邏輯)**:
  - drawing inferences or conclusions that are supported in or justified by evidence
- **Predicting(預估)**:
  - envisioning a plan and its consequences
- **Transforming knowledge(轉生知識)**:
  - changing or converting the condition, nature, form or function of concepts among contexts

批判性思維(critical thinking)的表現

- 情境成分
  - 真實
  - 客觀
  - 條理分明
  - 系統完整
  - 透徹清楚
  - 充滿信心
  - 感覺滿意
- 認知技巧
  - 解釋說明
  - 分析比較
  - 評估價值
  - 推論應用
  - 反覆改進

Emotional Intelligence

Another Example

Strengthening Leadership Skills through the Lens of Emotional Intelligence (E.I.)

Mary Sue Marz, PhD, RN
Director, School of Nursing
Eastern Michigan University

Emotional Intelligence vs. emotional competence

- Emotional Intelligence is the **ability**
- Emotional Competence is the **behavior!**

IQ vs. EI

- IQ involves cognitive abilities alone

- EI involves affective and cognitive

Concept analysis of EI

	Self ***Personal Competence***	*Other* ***Social Competence***
Recognition	Self Awareness ➢ **Emotional Self-awareness** ➢ **Accurate Self-assessment** ➢ **Self-confidence**	Social Awareness ➢ **Empathy** ➢ **Service Organization** ➢ **Organizational Awareness**
Regulation	Self Management ➢ **Emotional Self-Control** ➢ **Trustworthiness** ➢ **Conscientiousness** ➢ **Adaptability** ➢ **Achievement Drive**	Relationship Mgt. ➢ **Developing others** ➢ **Influence** ➢ **Communication** ➢ **Conflict Management** ➢ **Visionary leadership** ➢ **Catalyzing change** ➢ **Building bonds** ➢ **Teamwork & Collaboration**

Septic shock (another example)

感染

經由循環

自一組織傳至另一組織，引起

全身炎症反應

與

循環衰竭現象

嚴重可致死亡