Teaching clinical reasoning has evolved over a number of years. Many professions include it as part of their curriculum. This book focuses on analyzing and evaluating the nursing process over a period of time. Based on work with their students, the authors have created and developed what they refer to as the outcome-present state test (OPT) model of clinical reasoning. They claim this model supports the application of critical and creative thinking. With any model of critical thinking, reflection is an integral part of the process. The authors, over a series of chapters, try to define thinking strategies, techniques and tools they have found to be essential to clinical reflection and reasoning. This model outlines the role of critical and creative thinking skills.

Unit I: Clinical Reasoning in Nursing is comprised of a number of chapters. They look at the art and science of nursing regarding social policies. The authors then continue by defining and tracing the evolution of the previously identified generations’ creative and critical thinking processes. The third chapter then looks at key terms utilized in the OPT model and compares problem-orientated and outcome-orientated thinking. The final chapter in this unit discusses knowledge work in nursing.

Unit II – Clinical Reasoning Across Contexts uses a series of case studies to illustrate how the OPT model can be utilized to support clinical reasoning. The section’s first chapter identifies tools and techniques utilized for the model. Chapter 6 represents a case for clinical reasoning in primary care. Chapter 7 focuses on acute care, Chapter 8 on home health care, Chapter 9 on community mental health and Chapter 10 on long-term care facilities.

Unit III – Reasoning in the Future focuses on alternative uses and applications of the OPT model. Chapter 11 supports the use of OPT model for clinical supervision. Chapter 12 discusses the use of the OPT model and how it supports middle-range nursing practice theories and the final chapter looks at future health trends.
Chapter 1 - The Art and Science of Clinical Reasoning: Nursing and Society

Pesut and Johnson then go on to differentiate a profession from other occupations. They believe that a profession operates under a code of ethics and draws on this code to guide themselves in day to day activities within the profession. The profession will also provide to its members education and socialization. These organizations are self regulatory. Self regulation allows the profession to ensure that its members act in the public’s best interests.

The social context of nursing is reviewed. ANA’s social policy statement is expanded upon. The statement defines the framework that allows the reader to understand nursing’s relationship with society and its obligations. The statement defines nursing, identifies the knowledge base for its practice, identifies the differences between basic and advance nursing and discussing the governance that encompasses profession, legal and self governance.

The authors then go on to describe how nursing science requires the use of logic to solve problems. They argue that this requires a scientific method to problem solving. The nurse must approach this by identifying the problem, hypothesizing a number of solutions and then testing the solutions to the problem.

There are three kinds of nursing. They are as follows: basic nursing science, applied nursing science and practical science. Basic nursing science is knowledge that is gained solely for the purpose of knowing. This knowledge base allows the nurse to understand about the client. Applied science allows the nurse to directly care for the client. The authors propose that both of these sciences serve as the foundation for clinical reasoning. The practical science is seen as a combination of the art and science of nursing. They then refer to Johnson’s review of what the art of nursing is. Reviewing this statement the reader is able to determine the art of nursing is deeply rooted in the creative thinking process.

The challenge for nursing as with any other profession is how to combine the science with the art into a practical form. There should be a balance between the two with each being given due consideration. The authors compare the art of nursing to the findings of the Pew Health Professions Commissions. Their conclusion is that the art of nursing demonstrates how essential nurses would be in the 21st century. Pesut and Herman believe that the blending of art and science will allow nurses of the future to meet the challenges of health care.

Chapter 2 - Nursing Process: Traditions and Transformations

During the first generation, the nursing process was designed to allow nurses to organize their thinking so that when patient problems arose or were encountered they could be anticipated and solved quickly. In 1960, 21 nursing problems were identified and that was the focus of nursing care. The result being that nursing educators developed a problem solving method that focuses on assessment. In 1988, a four step process was developed. APIE involved assessment, planning, intervention and evaluation.

The result of using this four step method was that nurses were able to focus in on specific problems. Nursing actions, procedures and interventions were developed specific for each type of diagnoses. We then saw the emergence of critical paths evolving from this process.

In 1973, the first Nursing Diagnosis Conference was held. This established a dialogue leading to a standardization of descriptives of commonly occurring clinical problems. This conference also conceptualized the nursing diagnosis. This lead to nursing diagnosis being included in the nursing process. We then saw a shift in the nursing model. The nursing process model of problem identification and solution finding moved to a reasoning model. At this time, many studies emerged that looked at diagnostic reasoning and critical thinking in a nursing practice.

1973 also saw the publishing of the Standards of Nursing Practice. This publication established a five-step nursing process as the standard of care. These steps were: assessment, diagnosis, planning, implementation and evaluation. The result being that APIE currently being utilized in the nursing process evolved to ADPIE. The second generation nursing process had arrived. Research then began to focus on the processes and products of diagnostic reasoning. A number of books were published as this time that defined diagnostic reasoning as a number of steps.

What this meant was that the nursing process was no longer solely a linear or logical process. Nursing was now beginning to be influenced by theories of information processing and decision making. A debate continued at this time among scholars regarding the usefulness of the traditional nursing practice. In the mid 1980s Benner, and in 1996, Benner, Tanner and Chelsea conducted studies that identified that novice and expert nurses used different thinking processes.
Chapter 2 - Nursing Process: Traditions and Transformations

The end of the 80s also saw a shift in the health industry from problems and diagnosis to one of measurement of outcomes. Research now began to focus on thinking and reasoning. That research coupled with the outcomes focus lead to the transformation of the nursing process to the third or current generation.

Contemporary nursing processes focus on outcome. The complex analysis of multiple conditions of a client requires the nurse to use critical thinking. Nursing must diagnose, intervene and provide an outcome. The authors proposed that creative and critical thinking are essential in this reasoning process. They concluded that a new model is required and not just a retro fitting of the new knowledge into the old process model. The model they proposed in the OPT model. The figure below illustrates this model

The authors conclude this chapter with a comparison of the different reasoning methods compared to the OPT method as illustrated in the following table (pg. 28).

<table>
<thead>
<tr>
<th>Scientific Method</th>
<th>Problem Solving</th>
<th>Nursing Process</th>
<th>OPT Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognizing problem</td>
<td>Encountering problem</td>
<td>Assessing</td>
<td>Client story</td>
</tr>
<tr>
<td>Collecting data</td>
<td>Collecting data</td>
<td></td>
<td>Reflection</td>
</tr>
<tr>
<td>Formulating hypothesis</td>
<td>Identifying exact nature of problem</td>
<td>Formulating nursing diagnosis</td>
<td>cue logic framing</td>
</tr>
<tr>
<td>Selecting plan for testing hypothesis</td>
<td>Determining plan of action</td>
<td>Planning</td>
<td>present state specify outcomes</td>
</tr>
<tr>
<td>Testing hypothesis</td>
<td>Carrying out plan</td>
<td>Implementing</td>
<td>Make clinical decision (intervention)</td>
</tr>
<tr>
<td>Interpreting results</td>
<td>Evaluating plan in new situation</td>
<td>Evaluating</td>
<td>Test – identify gaps and evidence</td>
</tr>
<tr>
<td>Evaluating hypothesis</td>
<td></td>
<td></td>
<td>Make clinical judgments</td>
</tr>
</tbody>
</table>

Chapter 3 - The OPT Model of Clinical Reasoning

The authors believe that the OPT Model “provides a framework that addresses the current outcome focused agenda of the health care industry, fosters higher-order thinking skills and accommodates present and future knowledge development activities in nursing”. They see clinical reasoning as the “reflective, concurrent, creative and critical thinking processes nurses use in practice to understand and frame client stories as well as organize nursing actions to achieve tested outcomes”.

When looking at the OPT Model there are a number of components identified. (1) Clinical decision making is the process of choosing nursing actions and interventions. (2) Clinical judgment is the process of attributing meaning to evidence or results that are compared to evidence or results that are compared to outcomes. The OPT Model shifts the nursing process from being problem orientated to outcome orientated.
**Chapter 3 - The OPT Model of Clinical Reasoning**

The OPT Model was developed after the test-operate-test-exit (TOTE) model. This model explained creative thinking and management of innovators. To use this model a nurse must look at a number of activities as they reason out clinical situations. To much better understand the OPT Model it is better to identify each of the parts of the model. The main difference of the OPT Model is that it places an emphasis on framing the situation based on the client’s story. The authors emphasize that student’s must listen to the client’s story to gain insight to what type of nursing care they need. It is just not good enough to develop a care plan from reading texts.

**Client Story and Framing.** We constantly frame or form a perceptive position on situations we encounter. Framing influences and guides our perception and behavior. Framing is important aspect of clinical reasoning. When gathering information all angles need to be considered. Reflection is an important aspect of framing. Fairhurst and Sarr’s reflected on a number of observations about the importance of framing.

In the OPT model, one needs to use reflection as part of the process. This process will involve critical, creative and concurrent thinking. The authors identify reflection as the means that a person observes themselves and think about the client at the same time. They believe that the greater a person reflects the much higher quality care the will give. The skills of monitoring, analyzing, predicting, evaluating, and revising are all part of the reflection process. Skills of interpretation, analysis, inference, explanation, evaluation, and self-regulation all play a role in critical thinking.

**Chapter 4 - Knowledge Work and Clinical Reasoning: Using Organized Knowledge in Nursing Practice**

This chapter reviewed the development of the classification systems used in nursing. They illustrate that different levels of nursing require different levels of nursing practice data to make decisions, determine how resources are allocated and facilitate how nursing practice actually develops.

Many health professions use classification systems. Nursing specific ones have developed in the past few decades. Around 1975, work began on developing nursing data classification systems. Experiences of practicing nurses was examined, standardization of the profession’s language was developed, and finally a systemic development and classification of nursing knowledge occurred. Systems were developed to allow the users to participate in an informed practice. It reasons that one would have to master the knowledge in the systems to allow one to be able to reason about their profession. “Henry and Constable, 1997, proposed that classification systems and integrated information systems are the building blocks for transforming data into nursing knowledge”.

The authors propose that “organizing nursing knowledge for purposes of practice, education, and research in a professional responsibility”. An illustration of the Nursing Intervention Classification (NIC) is highlighted. This model identifies nursing data contributed from a number of levels including individual, organizational, and state/national.
Individual level is comprised of both students and clinicians. This level is that most important to clinical reasoning. Knowledge gained at this level will contribute to clinical decision making and how it is documented. Data at this level is organized such that it allows the individual to explain client problems, interventions that are considered, outcomes that could occur and the choices and decisions that the individual must make. If this data is organized properly, it can be aggregated and then used at the organizational level.

Organizational level is comprised of both managers and administrators. Data is combined at this level and the linked to other systems. What this allows the administrator to do is study resources, costs, efficiency and education. Nursing care elements, client data elements and service data elements are all utilized at this level. How this data is reported in the end is really determined by the organization itself.

National level is comprised of both administrators and researchers. This data is the broadest of scope of all data collected. Data at this level can be utilized to identify trends related to nursing care, client problems and used for quality assurance evaluation.

It is important to note that regardless of what level you are practicing at, you should be aware of actions taking place at other levels. Data from all levels is used to determine nursing’s contribution to health care.

A number of other classifications that have been developed were over the past few decades were also highlighted. NANDA which was one of the first nurse-initiated classification systems developed in 1993. NIC is a system which classified nursing treatments. This allowed the advancement of the knowledge base of nursing. NOC is a system that allowed the identification, classification and validation of patient-sensitive outcomes. Omaha Classification System allowed the integration of thoughts and ideas from nursing theorists, researchers, educators and clinicians. This model was used in community health based nursing. Gordon’s Functional Health Patterns. This system was developed concurrently with NANDA. This system identified 11 patterns of health and illness of client’s responses over time. DSM-IV was a classification system used for mental health nursing.
Chapter 5 - Using OPT in Clinical Practice

Many times a client’s story can be very complex. The clinical reasoning web is a tool the user can utilize to allow them to simplify those complex stories into key issues. What one does is spin and weave relationships based on nursing diagnoses associated with the client’s medical condition. The illustration of Chronic Obstructive Disease is used to demonstrate this tool.

The thinking strategies worksheet is then discussed. This looks at various thinking skills the support reflective clinical reason. The author looks at each strategy and defines each. Thinking Strategies include: knowledge work, self-talk, schema search, prototype identification, hypothesizing, if-then thinking, comparative analysis, juxtaposing, reflexive comparison, reframing, and reflection check.

Chapter 6 - Clinical Reasoning with a Wellness Focus: Primarily Care and Marjory Gordon’s Functional Health Patterns

In this chapter, the authors explore a number of selected health care issues focusing on wellness. They look at Marjory Gordon’s 21 priority areas for health and disease prevention promotion. Pesut and Herman believe that registered nurses are the health coaches of the future.

Primary care is looked at as the foundation for an effective health care system. Many believe that it is essential to an integrated health care system to achieve health outcomes. There was an agenda proposed by the United States Public Health service in 2000. This looked at a number of ideas centering such topics as health promotion, health protection, preventive services and surveillance. The purpose of this was to “commit the nation to achieving three health related goals: an increased span of life, reduced differences in health status among individuals and groups, and improved access to health care for all Americans”.

The authors believe that OPT model provides the structure necessary for clinical reasoning about health and welcome. They propose that Marjory Gordon’s functional health pattern classification system would allow nurses to very quickly pinpoint concerns into those functional areas. Using Gordon’s system one can determine strengths or deviations from the norms. The remaining of the chapter uses a case once again. This illustrates the use of the tools presented in the previous chapter and utilizes Gordon’s system in conjunction with them to assess and analyze health care needs of predominantly well patient.

Chapter 7 - Clinical Reasoning: in an Acute Care Context: The OPT Model and NANDA

Though a person may be in good health, there are times when they develop conditions that require attention in an acute care treatment institution. The OPT Model can successfully be used in acute care or hospital setting. This chapter looks at postoperative knee replacement and how the OPT Model can be used to support outcome decision for this type of client.

The acute setting is where many types of procedures may occur. The procedures vary and can include invasive diagnostic procedures, surgery or even emergency medical treatment. Both clients with chronic disease or reasonably healthy can be treated at some time in their life in an acute setting.

The NANDA classifications lends itself well to be used in conjunction with the OPT Model when looking at client’s in an acute care setting. The NANDA systems looks at nursing diagnoses centered around concepts and various characteristics. This can include signs and symptoms, and a number of other characteristics. The remaining of the chapter utilizes the case study. This case study illustrates the use of the tools presented in the Chapter 5, the OPT Model and utilizes the NANDA classification system in assessing health care needs of a client in an acute care setting.
AN EXECUTIVE BOOK SUMMARY

Chapter 8 - Clinical Reasoning in Community Care: Using the OPT Model and the Omaha Nursing Classification

This Omaha classification system really looks at nursing care for the client in a home setting. There has been a trend seen in recent years that health care is moving from the acute care hospitals into the communities. Care givers in the community have to look at psychosocial, physiological and health-behavior issues. Interventions can include: teaching, relating both to treatments and prevention, administration of the treatments, observing and reporting back to the health care team. A care giver might also have to plan for resource acquisition for the client.

The Omaha Classification System really looked at four domains related to community health practice. They identified 40 client problems that could be grouped under these areas. “Domain I Environmental: consisting of material resources, physical surrounding, and substances both internal and external to client, home, neighborhood, and broader community. Domain II Psychosocial: consisting of patterns of behavior, communication, relationship, and development. Domain III Physiological: consists of functional status of processes that maintain life. Domain IV Health-Related Behaviors: consist of activities that maintain or promote wellness, promote recovery or maximize rehabilitation potential”.

The Omaha Classification System also further looks at four nursing interventions and 62 target interventions. The intervention scheme of this system looks at 1) health teaching, guidance and counseling, 2) treatments and procedures, 3) case management and 4) surveillance. Outcomes play an important role in this classification system. A problem rating scale is used looking at client knowledge, behavior and status. There are no real descriptors to this rating scale. Nurses are required to determine a rating score based on their nursing knowledge and clinical judgment skills. This system can be used for public health, home heath and also ambulatory care centres. The remaining of the chapter utilizes the case study. This case study illustrates the use of the tools presented in the Chapter 5, the OPT Model and utilizes the Omaha classification system in assessing health care needs of a client in the context of community care.

Chapter 9 - Clinical Reasoning in Community Mental Health Contexts: Using the OPT Model and DSM-IV

DSM-IV is used to develop care plans for patients with mental health disorders. In this chapter they focus on a client with a major depressive disorder. NANDA and NIC can also be useful adjuncts in this area. Psychiatric nurses can diagnose and treat many conditions. Their activities can range from counseling, self-care activities to case management. The DSM-IV classification is really a means to allow clinicians and researchers to share a common language in regards to mental health. The DSM-IV will give a definition of the disorder and other information regarding the disorder like laboratory finding, physical examination facts etc. DSM-IV also provides a way to document the condition. The remaining of the chapter utilizes the case study. This case study illustrates the use of the tools presented in the Chapter 5, the OPT Model and utilizes DSM-IV, NANDA and NIC systems in assessing mental health needs of a client in the context of community mental health.

Chapter 10 - Clinical Reasoning in a Long-Term Care Context

This chapter the authors apply the OPT Model to a specific client that resides in a long-term care facility. The OPT Model and NANDA nursing diagnoses are used with the tools present in Chapter 5. The authors then go on to describe a long term care facility and some of the diagnosis and setting-sensitive issues that can be prevalent. The four nursing diagnoses they felt had importance when dealing with elderly clients in a long term facility are as follows: 1) diversional activity deficit, 2) alterations in health maintenance, 3) high risk for injury and 4) noncompliance. The other diagnoses and treatments they felt presented significant nursing challenges were as follows: 1) alterations in bowel and bladder pattern, 2) activity intolerance, 3) pain, 4) impaired skin integrity 5) alterations in nutrition, 6) dehydration and 7) self-care deficits.

Some people age gracefully and maintain their vigor, while others decline very rapidly with advancing age. Our images and experiences with the effects of aging on health will influence our choices of outcomes in gerontological nursing. The goal of gerontological nursing is to allow the client to function as fully as possible to their potential. Sometimes palliative care, maybe an outcome, one has to consider. This nursing field is a challenge.

The remaining of the chapter utilizes the case study. This case study illustrates the use of the tools presented in the Chapter 5, the OPT Model and utilizes NANDA system in assessing care for a client in the context of the long-term care facility.
Chapter 11 – Using the OPT Model to Support Clinical Supervision

As the health care system redesigns itself, many traditional roles are starting to change and evolve. Nurses may find themselves having to supervise ancillary health care workers. Their challenge will be to teach others how to reason about complex care situations. This chapter looks at different types of intelligence and how to be successful in clinical supervision. This includes academic, practical, successful and nursing intelligence. The authors illustrate how to use the OPT Model to think about and structure clinical supervision sessions.

The purpose of clinical supervision is to assist an individual’s is succeeding to master their therapeutic competencies. As a supervisor one must be able to identify both strengths and weaknesses and assist the individual in compensating or correcting incompetencies. “Clinical supervision enables people to learn, develop, and reflect on practice problems and gain insight, support and guidance that enhances dare and professional development”. Many professions use this as the first step to life-long learning.

Clinical supervision is usually accomplished through a dialogue of questions between the supervisor and student. This allows the supervisor to stimulate the student to reflect and to act upon many strategies that would facilitate clinical reasoning. These questions can be very similar in nature to those seen with the OPT Model. The remaining part of the chapter illustrates how the OPT Model Worksheet can be utilized in this process.

Chapter 12 – Using the OPT Model for Middle Range Theory Development.

Researchers can use this model to test through research middle range theories. The authors propose that “The OPT Model, coupled with nursing knowledge content, is potentially useful for organizing diagnoses, interventions and outcomes in a unique way. Organizing problems, outcomes, and interventions together enables clinicians to develop and test middle-range theories that have practice relevance”.

Levels of practice theory have been described. Level 1 names the practice theory. The question “What is this?” guides activities. NANDA nursing diagnoses are an example of this. Level 2 describes practice theory. This level actually answers the question “What is happening here?” An example cited for this is the correlations among anxiety, pain and comfort in regard to symptom management. Level 3 is predictive practice theory. One must ask the question “What will happen if….. ?” One may begin to develop hypothesis testing at this stage. An example cited for this is “do people who can self-administer pain medication use more or less pain medication than people who must rely on health care providers for pain medication administration? Level 4 is producing practice theory. This really defines the activities that will bring about the goals. NANDA, NIC and NOC have made it easier to develop these theories.

The remaining part of the chapter illustrates how the OPT Model Worksheet can be utilized in this process.

Chapter 13 — Reasoning from the Past into the Future

The authors feel that keeping up with the developing trends of health care will require an investment in developing clinical reasoning skills. Their belief is that the OPT Model will make important contributions in the future of nursing practice (pg. 230). They state that the understanding of the tools (OPT Model, Clinical Reasoning Web and Thinking Strategies Worksheet.) presented in this book will allow for more sophisticated clinical reasoning models to be developed in the future. As more people in the profession learn and adopt the OPT Model, they see the evolution of the art and science of clinical reasoning continuing.

As with any health profession as we see this shift in health care, once must be resilient and modify their processes to meet with these changes. The authors suggest that nurses must contribute to health care design in the future. Their focus should be “We are the problem, we are the solution, we are the source (pg. 231). Pesut and Herman illustrated the progression of the generations of the nursing process. They see the heart of any new process develop requiring critical thinking and self-reflection. With the third generation nursing process looking at outcome specification and testing, they see the OPT Model as having several advantages over the traditional nursing process models.

Based on their experiences, the authors believe that their OPT Model will be useful in practice. There is still much research to do with this model. How will it be incorporated into the education and teaching of students and their learning? They will have to determine if it will change the learning from what it is currently. There is a need for more education for

Trends of Health Care
Bezold & Mayer
• Globalization of health care
• Focus on outcomes and cost-containment
• Evolving information infrastructure
• Shift from a diagnose and treat to a predict and manage health care paradigm (pg. 230)

Advantages of OPT Model
1. The model reinforces the reflective nature of clinical reasoning
2. It captures the concurrent, iterative nature of clinical reasoning.
3. The model is more compatible with an outcome-focused health care system.
4. The model is built on the foundation of critical and creative thinking.
5. The model accommodates recent knowledge development activities in nursing.
6. The model can be used in many setting for teaching, learning, conducting clinical supervision, theory development and testing, and organizing nursing research activities.
Book Review

In this book, the authors present and explain outcome-present-state model, "a third-generation nursing process model that emphasize reflection, outcome specification, and testing, given the client’s story". Given the inevitable trends and growing emphasis on outcome measures in the health care industry, including the demand to document what nurses contribute to health care, there is a need for nurses to develop clinical reasoning skills. They can start by reading about the OPT model in this book. The authors applied the OPT model and its concepts to selected health care issues and needs of clients in different health care contexts. Every nurse who reads this book can relate to the use of the OPT model in a care context similar to his/her respective practice setting. This reader thoroughly enjoyed this book. The subsections are separated (yet integrated) by tables, figures, and "stop and think" exercises designed to reinforce concepts and materials.

Reviewer: Ukamaka Oruche (Oruche@worldnet.att.net) (Indiana, USA)

REFLECTIVE THOUGHTS

I found the book to progress in a logical manner. I did like the way the authors after introducing the OPT Model and tools utilized case studies from all aspects nursing practice. As a text book this would be a very useful exercise. We do know that all profession in the heath care industry will require creative thinking as the heath care industry evolves. Coming from another profession in the health care field, I do see the validity of this model and tools and believe it could be incorporated into other curriculums focused on that professions’ needs. The only thing I found I didn’t like about reading this book is the obvious slant towards nursing being the end all and be all and savior for the health care field. There are other professions that are as well suited or even better suited to perform some of the activities that the authors claimed nursing were the best for. As a textbook being used by students, I believe this is giving the wrong impression. And setting an unwanted precedent. The future of health care in contingent on interdisciplinary team approach for the betterment of the client or patient.