Stuart Stress Adaptation Model

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Introduction

- Stuart Stress Adaptation Model is a model of psychiatric nursing care, which integrates biological, psychological, sociocultural, environmental, and legal-ethical aspects of patient care into a unified framework for practice.
- The Stuart Stress Adaptation Model of health and wellness provides a consistent nursing-oriented framework (Stuart, 2009).

Assumptions

- "Nature is ordered as a social hierarchy from the simplest unit to the most complex and the individual is a part of family, group, community, society, and the larger biosphere."
- "Nursing care is provided within a biological, psychological, sociocultural, environmental, and legal-ethical context."
- Health/illness and adaptation/maladaptation (nursing world view) are two distinct continuums.
- The model includes the primary, secondary, and tertiary levels of prevention by describing four discrete stages of psychiatric treatment: crisis, acute, maintenance, and health promotion.
- Nursing care is based on the use of the nursing process and the standards of care and professional performance for psychiatric nurses.

Concepts

- Biopsychosocial approach - a holistic perspective that integrates biological, psychological, and sociocultural aspects of care.
- Predisposing factors - risk factors such as genetic background.
- Precipitating stressors - stimuli that the person perceives as challenging such as life events.
- Appraisal of stressor - an evaluation of the significance of a stressor.
- Coping resources - options or strategies that help determine what can be done as well as what is at stake.
- Adaptation/maladaptation -
- Levels of Prevention
• Primary
• Secondary
• Tertiary

- Four stages of psychiatric treatment & nursing care
  - Crisis stage
  - Acute stage
  - Maintenance stage
  - Health promotion stage

Conclusion

- Stuart Stress Adaptation Model can be used across psychiatric settings.
- This model is based on standards of psychiatric nursing care and professional performance.

References

   Stuart - Mosby Elsevier, Missouri.
2. Theorist's
   page http://academicdepartments.musc.edu/nursing/departments/employee/directory/faculty/stuartg.htm

General Adaptation Syndrome (GAS) - Theory of Stress
Hans Selye
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“Between stimulus and response there is a space. In that space is our power to choose our response. In our response lies our growth and our freedom.” - Viktor Frankl

Introduction

- Hans Selye (1907-1982) was a Hungarian endocrinologist, first to give a scientific explanation for biological stress.
- Hans Selye explained his stress model based on physiology and psychobiology as General Adaptation Syndrome (GAS).
- His model states that an event that threatens an organism’s well-being (a stressor) leads to a three-stage bodily response:
  - Stage 1: Alarm
  - Stage 2: Resistance
  - Stage 3: Exhaustion
- He explained about hypothalamic-pituitary-adrenal axis (HPA axis) system which prepares the body to cope with stress.
- Selye also explained about a local adaptation syndrome which refers
to the inflammatory response and repair processes occur at the local site of tissue injury as in small, topical injuries, such as contact dermatitis which may lead to GAS if the local injury is severe enough.

Stages

- **Stage 1: Alarm**
  - Upon encountering a stressor, body reacts with “fight-or-flight” response and sympathetic nervous system is activated.
  - Hormones such as cortisol and adrenalin released into the bloodstream to meet the threat or danger.
  - The body’s resources now mobilized.

- **Stage 2: Resistance**
  - Parasympathetic nervous system returns many physiological functions to normal levels while body focuses resources against the stressor.
  - Blood glucose levels remain high, cortisol and adrenalin continue to circulate at elevated levels, but outward appearance of organism seems normal.
  - Increase HR, BP, breathing
  - Body remains on red alert.

- **Stage 3: Exhaustion**
  - If stressor continues beyond body's capacity, organism exhausts resources and becomes susceptible to disease and death.

Terminology

- **Stress:** is a condition in which the human system responds to changes in its normal balanced state.
- **Stressor:** is any thing that is perceived as challenging, threatening or demanding.
- **Eustress or positive stress:** Manageable stress which can lead to growth and enhanced competence.
- **Distress or Negative stress:** Uncontrollable, prolonged, or overwhelming stress is destructive.
- **Adaptation:** is the change that takes place as a result of the response to a stressor.
- **Coping:** a balancing act between biological, psychological, and social process.
  - Adaptive Coping Contribute to resolution of the stress response
- Maladaptive Coping – Strategies that cause further problems
- Active Coping – Actively seeking resolution to the stress

- Homeostasis: refers to a steady state within the body and various physiologic mechanisms within the body respond to internal changes to maintain a relative constancy in the internal environment.

- Resilience: Resistant quality that permits a person to recovery quickly and thrive in spite of adversity

Conclusion

- Hans Selye’s theory profoundly influenced the scientific study of stress.
- Stress is a state produced by a change in the environment and the nature of the stressor is variable.
- The individual appraises and copes with the stress, to reach the goal of adaptation.
- The process is called coping with the stress, and it is achieved through a compensatory process with physiologic and psychological components.

References


SISTER CALLISTA ROY: ADAPTATION THEORY

“When push comes to a shove, we will seldom disappoint ourselves. We all harbour greater stores of strength than we think. Adversity brings the opportunity to test our mettle and discover for ourselves the stuff of which we are made.”

Do not underestimate the power of a person to cope. He may be dependent now but deep within him lies the energy to adapt.

I remember a particular patient when I was still an ICU nurse. He was a pastor afflicted with a serious liver problem. Specialists come and go at his ICU bed but they cannot seem to diagnose the problem. Time is running out and the pastor is slipping fast. He’s bleeding and God knows how many units of blood have been transfused to him. He went into coma. Doctors were giving up, and so were we. We’ve primed the family but they just won’t give
up...yet. The wife is always there at his side during visiting hours, always cheerful and full of hope. So is the daughter who even lets her dad listen to praise songs as if he is not comatose. Many days passed and to our amazement, the pastor woke up from coma. It's been uphill from there. Everything just fell into the right place. He was transferred to a regular room and eventually discharged with a clean bill of health.

Amazing? What could it be? A miracle? Or could it be the medications working, or the transfusion? Or the family’s fervent prayers? We couldn’t tell but one thing is certain: human beings are made to persist. And that is what Sister Callista Roy believed, too.

Sister Callista Roy is a member of the Sisters of Saint Joseph of Carondelet. She received a bachelor of science in nursing from Mount Saint Mary's College in Los Angeles California, a master of science in nursing from UCLA, and a master’s degree and doctorate in sociology from UCLA (Philips, 2002). Roy first proposed the RAM while studying for her master’s degree at UCLA, where Dorothy Johnson challenged students to develop conceptual models of nursing (Philips, 2002; Roy & Andrew, 1999). She received many honors and awards for her scholarly and professional work and is currently the Graduate Faculty Nurse Theorist at Boston College, School of Nursing (Roy, 2000).

PHILOSOPHICAL UNDERPINNINGS OF THE THEORY

Johnson’s nursing model was the impetus for the development of Roy’s Adaptation Model. Roy also incorporated concepts from Helson’s adaptation theory, von Bertalanffy’s system model, Rapoport’s system definition, the stress and adaptation theories of Dohrenrend and Selye, and the coping model of Lazarus (Philips, 2002).
MAJOR ASSUMPTIONS, CONCEPTS AND RELATIONSHIPS ASSUMPTIONS

In the Adaptation Model, assumptions are specified as scientific assumptions or philosophical assumptions.

Scientific Assumptions

- Systems of matter and energy progress to higher levels of complex self-organization.
- Consciousness and meaning are constitutive of person and environment integration.
- Awareness of self and environment is rooted in thinking and feeling.
- Humans by their decisions are accountable for the integration of creative processes.
- Thinking and feeling mediate human action.
- System relationships include acceptance, protection, and fostering of interdependence.
- Persons and the earth have common patterns and integral relationships.
- Persons and environment transformations are created in human consciousness.
- Integration of human and environment meanings results in adaptation (Roy & Andrew, 1999, p.35).

Philosophical Assumptions

- Persons have mutual relationships with the world and God.
- Human meaning is rooted in the omega point convergence of the universe.
- God is intimately revealed in the diversity of creation and is the common destiny of creation.
- Persons use human creative abilities of awareness, enlightenment, and faith.
- Persons are accountable for the processes of deriving, sustaining and transforming the universe.
  (Roy & Andrew, 1999, p. 35).

Reading through Roy’s adaptation theory, I now understand man’s immense capacity to adapt. I believe in a higher power, I believe in miracles, but I believe, too, that the greater miracle is the perfect interplay of all the factors that push a person to adapt at various modes.
### The Four Modes of Adaptation

1. **Physiologic-Physical Mode**

   Physical and chemical processes involved in the function and activities of living organisms; the underlying need is physiologic integrity as seen in the degree of wholeness achieved through adaptation to change in needs.

2. **Self-concept-Group Identity Mode**

   Focuses on psychological and spiritual integrity and sense of unity, meaning, and purposefulness in the universe.

3. **Role Function Mode**

   Roles that individuals occupy in society, fulfilling the need for social integrity. It is knowing who one is in relation to others.

4. **Interdependence Mode**

   The close relationships of people and their purpose, structure and development individually and in groups and the adaptation potential of these groups.
So how did the pastor recover? At the physiologic level, it was good that he was brought to the ICU immediately since the basic physiologic needs are met at once. He was intubated (for oxygenation), an NGT was put in place (for nutrition), a foley catheter was inserted (for elimination), and enema was also done to facilitate elimination of wastes.

Visitors were restricted early on to provide optimum rest and to minimize cross contamination. Isolation measures were also instituted. Routine ICU care, so to speak. Every time the patient is assigned to me, I try to talk to him as if he listens and can answer. His churchmates were also there every time they are allowed to see him telling him that they are waiting for him at their church. The wife and the daughter never gave up on him. They are always there to tell him how much they love and need him. The adaptation process was a long one, but he did adapt and went on to recover. The ICU environment is not a very ideal place for adaptation, but given the situation and condition of the patient at that time, it was the best place to support the body’s power to adapt.

ROY’S THEORY AS APPLIED TO:

NURSING PRACTICE

Using Roy’s six –step nursing process, the nurse assesses first the behaviors and second the stimuli affecting those behaviors. In a third step the nurse makes a statement or nursing diagnosis of the person’s adaptive state and fourth, sets goals to promote adaptation. Fifth, nursing interventions are aimed at managing the stimuli to promote adaptation. The last step in
the nursing process is evaluation. By manipulating the stimuli and not the patient, the nurse enhances the interaction of the person with their environment, thereby promoting health.

Hamner in 1989 discussed the Roy model and how it could be applied to nursing care in a cardiac unit (CCU). Hamner describes the model as enhancing care in the CCU and being consistent with the nursing process. Hamner found that the model assessed all patients’ behavior, so that none was excluded. The author discovered that the Roy model provides a structure in which manipulation of stimuli are not overlooked. The model puts emphasis on identifying and reinforcing positive behavior which speeds recovery.

EDUCATION

The adaptation model is also useful in educational setting. Roy states that the model defines for students the distinct purpose of nursing which is to promote man’s adaptation in each of the adaptive modes in situations of health and illness.

In the early 1980’s the School of Nursing at the University of Ottawa experienced a major curriculum change. This change included incorporating a nursing model by which to base their new curriculum. The change included incorporating a nursing model by which to base their new curriculum. The Roy adaptation model was one of the models to be included in the first year of the baccalaureate program. The professors had to meet four challenges during this change:

1. Adapting the course to be congruent with the Roy model,
2. Developing teaching tools suitable for student learning.
3. Sequencing of content for student learning.
4. Ensuring that the new curriculum is consistent with the nursing process.
4. Obtaining competent role models.

**RESEARCH**

If research is to affect practitioners’ behavior, it must be directed at testing and retesting conceptual models for nursing practice. Roy has stated that theory development and the testing of developed theories are nursing’s highest priorities. The model must be able to regenerate testable hypotheses for it to be researchable.

Fawcett and Tulman used the model for the design of studies measuring functional status after childbirth. They also used the model for retrospective and longitudinal studies of variables associated with functional status during the postpartum period. The model was also used for ongoing studies of functional status during pregnancy and after the diagnosis of breast cancer. The model facilitated the selection of study variables and clarified thinking about the classification of study variables. The model was a useful guide for the design and conduct of studies of functional status.

**GROUP D**