Theoretical and Philosophical Foundations of Nursing Science

The development of nursing knowledge has evolved through several distinct eras, moving from the **Curriculum Era (1900-1940s)**, which focused on standardized content for diploma programs, to the modern **Theory Utilization Era (21st Century)**, which emphasizes using theory to produce evidence-based knowledge 1, 2. Nursing science is rooted in **epistemology**, drawing from two competing foundations: **rationalism** (reason and deductive logic) and **empiricism** (sensory experience and inductive logic) 3.

Central to the discipline is the **nursing metaparadigm**, which identifies four global concepts of interest:

- **Person:** The holistic recipient of care (individuals, families, or communities) 4.
- **Environment:** The internal and external surroundings affecting the client, including physical, social, and psychological factors 4.
- **Health:** The degree of wellness or well-being experienced by the client 4.
- **Nursing:** The compassionate, scientific, and collaborative actions taken by the nurse to promote health and prevent illness 5.

Nursing theories are further classified by scope, ranging from broad **Grand Nursing Theories** to more specific **Middle-Range** and **Prescriptive Nursing Theories** 5, 6.

Florence Nightingale: Environmental Theory

Nightingale's **Environmental Theory** posits that the **physical environment** is the primary factor in promoting health and facilitating recovery 7. She identified **five crucial components** for a healthy environment: pure air, pure water, efficient drainage, cleanliness, and light (specifically direct sunlight) 7. Her practice was defined by **13 Canons**, such as ventilation, noise control, and nutrition management 7, 8. Nightingale viewed nursing as both an art and a science that uses environmental management to aid nature's innate healing process 9, 10.

Virginia Henderson: Nursing Need Theory

Henderson's **Nursing Need Theory** centers on assisting individuals to reach a state of **independence** in meeting their fundamental health needs 11. She identified **14 basic needs** that form the foundation of care, including breathing normally, eating and drinking adequately, and communicating emotions 12, 13. The nurse's role is to act on behalf of those who lack the strength or knowledge to act for themselves, serving as a **substitute**, **helper**, or **partner** to the patient 14, 15.

Myra Estrin Levine: Conservation Model

Levine's **Conservation Model** is a holistic framework that prioritizes maintaining a patient's **wholeness** and **integrity** 16. The model is built on four **Principles of Conservation**:

1. **Conservation of Energy:** Balancing energy supply and demand 17.
2. **Conservation of Structural Integrity:** Preserving physical functions and internal structures 18.

3. **Conservation of Personal Integrity:** Protecting a patient's sense of self-worth and autonomy 18.
4. **Conservation of Social Integrity:** Recognizing the importance of family and community networks 19.Levine introduced the term **Trophicognosis** as a scientific alternative to medical diagnosis to guide nursing judgments 20.

Dorothea Orem: Self-Care Deficit Nursing Theory (SCDNT)

Orem's **SCDNT** is comprised of four interrelated theories: **Self-Care**, **Dependent-Care**, **Self-Care Deficit**, and **Nursing Systems** 21, 22. Nursing is required when an individual's **self-care agency** is inadequate to meet their **therapeutic self-care demands** 22. Nurses utilize three nursing systems based on the patient's ability: **Wholly Compensatory** (patient is entirely dependent), **Partially Compensatory** (shared responsibility), and **Supportive-Educative** (patient needs guidance or knowledge) 23.

Ida Jean Orlando: Deliberative Nursing Process Theory

Orlando conceptualized nursing as an **interactive process** focused on responding to a patient's **immediate needs** 24, 25. The theory emphasizes the dynamic relationship between **Patient Behavior** (verbal or non-verbal signals), the **Nurse's Perception**, and the **Nurse's Response** 26, 27. The goal is the **relief of distress** through deliberate, thoughtful action rather than routine tasks 26, 27.

Martha Rogers: Science of Unitary Human Beings

Rogers' theory provides a revolutionary framework viewing humans as irreducible **energy fields** integral with the environment 28, 29. Key concepts include **energy fields**, **openness**, **pattern**, and **pandimensionality** (a nonlinear domain without space or time attributes) 29, 30. Nursing is a science and art that seeks to promote **"symphonic interaction"** between human and environmental fields to reach maximum health potential 31.

Sister Callista Roy: Roy Adaptation Model (RAM)

The **RAM** views the person as a **holistic adaptive system** in constant interaction with a changing environment 32. When faced with stimuli (**focal**, **contextual**, or **residual**), the person makes adaptive responses across four modes: **Physiological-Physical**, **Self-Concept-Group Identity**, **Role Function**, and **Interdependence** 33, 34. The nurse acts as a "change agent" to help the patient develop effective coping patterns and maintain **system integrity** 32, 35.

Jean Watson: Philosophy and Science of Human Caring

Watson's theory emphasizes the interpersonal and **transpersonal relationship** between nurse and patient 36. Central to her work are the **Ten Carative Factors** (Clinical Caritas Processes), which focus on humanistic values, instilling hope, and fostering a helping-trusting relationship 37, 38. She views the human being as a **unity of mind, body, and nature** where the soul transcends objective space and time 39.

Ernestine Wiedenbach: The Helping Art of Clinical Nursing

Wiedenbach's theory focuses on the **art and practice of helping** 40. It is built on four elements: **Philosophy** (the nurse's beliefs), **Purpose** (overcoming health obstacles), **Practice** (nursing actions), and **Art** (sensitivity and compassion) 40, 41. She proposed a systematic approach to care involving the **observation of behavior**, **exploration of meaning**, and **taking deliberate action** to alleviate a patient's perceived need for help 42, 43.