Person

- The person is a layered multidimensional being. Each layer consists of five person variables or subsystems:
  - Physical/Physiological
  - Psychological
  - Socio-cultural
  - Developmental
  - Spiritual
- Neuman sees a person as an open system that works together with other parts of its body as it interacts with the environment.
- An open system that interacts with both internal and external environmental forces or stressors. Open system is characterized by the presence of an exchange of information and reaction with other factors surrounding a person.
- The human being is in constant change, moving toward a dynamic state of system stability or toward illness or varying degrees.

Health

- “Health is a condition in which all parts and subparts (variables) are in harmony with the whole of the client.”
- Considers health as dynamic in nature in which the person's health is at the level of health continuum—wellness or illness.
- Equated with wellness.
- Wellness exists when all the part or system of person works harmoniously.
- The condition or degree of system stability and is viewed as a continuum from wellness to illness.
- Neuman proposes a wellness-illness continuum, with the person's position on that continuum being influenced by their interaction with the variables and the stressors they encounter. The client system moves toward illness and death when more energy is needed than is available. The client system moves toward wellness when more energy is available than is needed.

Environment

- The totality of the internal and external forces which surround a person and with which they interact at any given time. These forces include the intrapersonal, interpersonal and extrapersonal stressors which can affect the person's normal line of defense and so can affect the stability of the system.
1. INTERNAL ENVIRONMENT – exists within the system; all forces and interactive influences that are solely within the boundaries of the client system
2. EXTERNAL ENVIRONMENT – exists outside the client system.
3. CREATED ENVIRONMENT – developed unconsciously by the client and is symbolic of system wholeness; it represents the open system exchange of energy with both the internal and external environments.

Nursing

- a unique profession that is concerned with all of the variables which influence the response a person might have to a stressor
- Neuman believes that nursing requires a holistic approach that considers all factors affecting a client's health—physical, physiological, psychological, mental, social, cultural, developmental and spiritual well-being.
- actions which assist individuals, families and groups to maintain a maximum level of wellness, and the primary aim is stability of the patient/client system, through nursing interventions to reduce stressors
- The primary concern of NURSING is to define the appropriate action in situations that are stress related or in relation to possible reactions of the client or client systems to stressors.
The goal of the model was to provide a wholistic overview of the physiological, psychological, sociocultural, and developmental aspects of human beings.

Neuman Systems Model's two major components are stress and the reaction to stress. The client in Neuman Systems Model is viewed as an open system in which repeated cycles of input, process, output, and feedback constitute a dynamic organizational pattern. Using the systems perspective, the client may be an individual, a group, a family, a community, or any aggregate. As they become more complex, the internal conditions of regulation become more complex. Exchanges with the environment are reciprocal; both the client and the environment may be affected either positively or negatively by the other. The system may adjust to the environment or adjust the environment to itself.
MAJOR CONCEPTS

I. PERSON VARIABLES

Each layer, or concentric circle, of the Neuman model is made up of the five person variables. Ideally, each of the person variables should be considered simultaneously and comprehensively.

1. Physiological - refers to the physicochemical structure and function of the body
2. Psychological - refers to mental processes and emotions
3. Sociocultural - refers to relationships; and social/cultural expectations and activities
4. Spiritual - refers to the influence of spiritual beliefs
5. Developmental - refers to those processes related to development over the lifespan

II. CENTRAL CORE

The basic structure, or central core, is made up of the basic survival factors that are common to the species (Neuman, 1995, in George, 1996). These factors include: system variables, genetic features, and the strengths and weaknesses of the system parts. Examples of these may include: hair color, body temperature regulation ability, functioning of body systems homeostatically, cognitive ability, physical strength, and value systems. The person's system is an open system and therefore is dynamic and constantly changing and evolving. Stability, or homeostasis, occurs when the amount of energy that is available exceeds that being used by the system. A homeostatic body system is constantly in a dynamic process of input, output, feedback, and compensation, which leads to a state of balance.

III. FLEXIBLE LINES OF DEFENSE

The flexible line of defense is the outer barrier or cushion to the normal line of defense, the line of resistance, and the core structure. If the flexible line of defense fails to provide adequate protection to the normal line of defense, the lines of resistance become activated. The flexible line of defense acts as a cushion and is described as accordion-like as it expands away from or contracts closer to the normal line of defense. The flexible line of defense is dynamic and can be changed/altered in a relatively short period of time.

IV. NORMAL LINE OF DEFENSE

The normal line of defense represents system stability over time. It is considered to be the usual level of stability in the system. The normal line of defense can change over time in response to coping or responding to the environment. An example is skin, which is stable and fairly constant, but can thicken into a callus over time.

V. LINES OF RESISTANCE
The lines of resistance protect the basic structure and become activated when environmental stressors invade the normal line of defense. Example: activation of the immune response after invasion of microorganisms. If the lines of resistance are effective, the system can reconstitute and if the lines of resistance are not effective, the resulting energy loss can result in death.

VI. RECONSTITUTION

Reconstitution is the increase in energy that occurs in relation to the degree of reaction to the stressor. Reconstitution begins at any point following initiation of treatment for invasion of stressors. Reconstitution may expand the normal line of defense beyond its previous level, stabilize the system at a lower level, or return it to the level that existed before the illness.

VII. STRESSORS

The Neuman Systems Model looks at the impact of stressors on health and addresses stress and the reduction of stress (in the form of stressors). Stressors are capable of having either a positive or negative effect on the client system. A stressor is any environmental force which can potentially affect the stability of the system: they may be:

- **Intrapersonal** - occur within person, e.g. emotions and feelings
- **Interpersonal** - occur between individuals, e.g. role expectations
- **Extra personal** - occur outside the individual, e.g. job or finance pressures

The person has a certain degree of reaction to any given stressor at any given time. The nature of the reaction depends in part on the strength of the lines of resistance and defense. By means of primary, secondary and tertiary interventions, the person (or the nurse) attempts to restore or maintain the stability of the system.

VII. PREVENTION

As defined by Neuman's model, prevention is the primary nursing intervention. Prevention focuses on keeping stressors and the stress response from having a detrimental effect on the body.

- **Primary** - Primary prevention occurs before the system reacts to a stressor. On the one hand, it strengthens the person (primarily the flexible line of defense) to enable him to better deal with stressors, and on the other hand manipulates the environment to reduce or weaken stressors. Primary prevention includes health promotion and maintenance of wellness.
- **Secondary** - Secondary prevention occurs after the system reacts to a stressor and is provided in terms of existing systems. Secondary prevention focuses on
preventing damage to the central core by strengthening the internal lines of resistance and/or removing the stressor.

- **Tertiary** - Tertiary prevention occurs after the system has been treated through secondary prevention strategies. Tertiary prevention offers support to the client and attempts to add energy to the system or reduce energy needed in order to facilitate reconstitution.