

## The Betty Neuman Systems Model: A Total Person Approach

This model attempts to assist individuals, families, and groups to attain and maintain a maximum level of total wellness by purposeful interventions. These are aimed at reduction of stress factors and adverse conditions which either affect or could affect optimal functioning in a given client's situation.

This model presents a comprehensive systems-based conceptual framework for nursing. It views the individual who is subject to the impact of stressors, reaction to stress and factors of reconstitution. It is considered a wellness model and illustrates the composite of five interacting variable-physiological, psychological, sociocultural, developmental and spiritual.

### The Assumptions of the Model

1. Even though each individual is viewed as unique, he/she is also a composite of common "knowns" or characteristics within a normal given range of response.
2. There are many known stressors. Each stressor is different in its potential to disturb the individual's equilibrium or **normal line of defense**. Also, the variables of physiologic, psychologic, sociocultural and developmental affect the degree to which an individual is able to use his/her **flexible line of defense** against possible reaction to a single stressor or combination of stressors.
3. Each individual, over time, has developed a normal range of resistance, which is referred to as a **normal line of defense**.
4. When the cushioning, accordion-like effect of the **flexible line defense** is no longer capable of protecting the individual against a stressor, the stressor breaks through the **normal line of defense**. The interrelationship of variables (physiologic, psychologic, sociocultural, development and spiritual) determines the degree of the organism's reaction to the stressor.
5. Each person has an internal set of resistance factors (lines of resistance), which attempt to stabilize and return him/her to their normal line of defense, should stress break through it.
6. **Environment** is broadly defined as all internal and external factors or influences surrounding the client/client system.
7. **Health** is viewed on a continuum of wellness and illness. Health is equated with optimal system stability changing within a normal range throughout the life span.
8. Nursing is seen as a unique profession in that it is concerned with all the variables affecting an individual's response to stressors. The aim of the total person approach

is to provide a unifying focus for approaching varied nursing problems and for understanding the basic phenomenon: man and his environment.

9. Preventions as Interventions: Begin at any point at which a stressor is either suspected or identified. There are three levels of preventions/interventions:
  - a. **Primary Prevention** relates to general knowledge that is applied to individual patient assessment in an attempt to identify and allay the possible risk factors associated with stressors to retain wellness.
  - b. **Secondary prevention** relates to symptomatology, appropriate ranking of instruction priorities and treatment to attain wellness.
  - c. **Tertiary Prevention** relates to the adaptive process as reconstitution or return to wellness begins, and moves back in a circular manner toward primary prevention.

## Explanation of The Model

The total person framework is an open systems model of 2 components-stress and reaction to it. The individual (client/client system) represented by a set of concentric circles or rings, is an open system in interaction with his/ her total interface with the environment, i.e., man is a system capable of intake of **extrapersonal** and **intrapersonal** factors from the external environment. He interacts with this environment by adjusting himself to it, or adjusting the environment to himself.

By a process of interaction and adjustment, the individual maintains varying degrees of harmony and balance between his **internal** and **external** environment.

Stressors are tension - producing with the potential of causing disequilibrium, situational and maturational crises, or the experience of stress within an individual's life.

The above interaction – adjustment process contains the variables that make up the flexible line of defense that defends against these stressors. Influencing factors would include an individual's basic physiologic structure or condition, sociocultural background, developmental state, spiritual dimension, cognitive skills, mental processes and relationships, age and sex.

Stressors, reactions and reconstitution factors can be viewed as intra-, inter-, or extra-personal in nature, i.e.

1. Intrapersonal-forces occurring within the individual, e.g. conditioned responses.
2. Interpersonal-forces occurring between one or more individuals. e.g. role expectations.
3. Extra personal-forces occurring outside the individual, e.g. financial circumstances.

What might be classified as a noxious stressor for one individual might not be for another. Time of occurrence, the individual's past and present conditions, nature and intensity of the stressor, amount of energy required for the organism to adapt are all variables.

However, one might be able to predict positive adjustment based on past healthy coping behavior in a similar situation, all factors being equal.

Graphically, the model is depicted by a series of concentric rings surrounding a central core. The series of concentric rings surrounding the core structure vary in size and distance from the center. The further away the rings are the more protection is provided.

The **flexible line of defense** is shown by the outer, broken circle. It is accordion-like and acts like a buffer system for the client's normal or stable state thus keeping the client system free from stressor reactions. The more it expands away from the normal line of defense, the greater the protection and as it draws closer, less protection is provided.

The **normal line of defense** is depicted as solid line or circle. It is essentially what the individual has become over time, or the "normal" or usual, steady state. When the normal line of defense has been penetrated, symptoms of instability or illness occur, caused by one or more impacting stressors.

The **lines of resistance** are flexible and made internal factors that help to defend against a stressor, e.g., the body's mobilization of WBC's or immune response mechanisms when needed.

The **central core** consists of basic survival factors common to all members of the species. Examples are the mechanism for maintenance of a normal temperature range, a genetic response pattern, the strengths and weaknesses of the various body parts and organs. However, each person has certain unique or baseline characteristics within the species range of commonalities.

All client systems have five variable areas with varying degrees of development and a wide range of interactive styles and potential. The first four are commonly understood and the fifth dimension was added to the model in 1989 and still requires description:

- Physiological – refers to the bodily structure and function
- Psychological – refers to the mental processes and relationships
- Sociocultural – refers to the combined social and cultural functions
- Developmental – refers to life developmental processes
- Spiritual – refers to spiritual belief system influences

The author of this model believes the spirit controls the mind, the mind controls the body; the spiritual variable positively or negatively effects of is affected by other variables such as grief or loss (psychological), affects the will to live and as an energy source in change and optimal system stability.

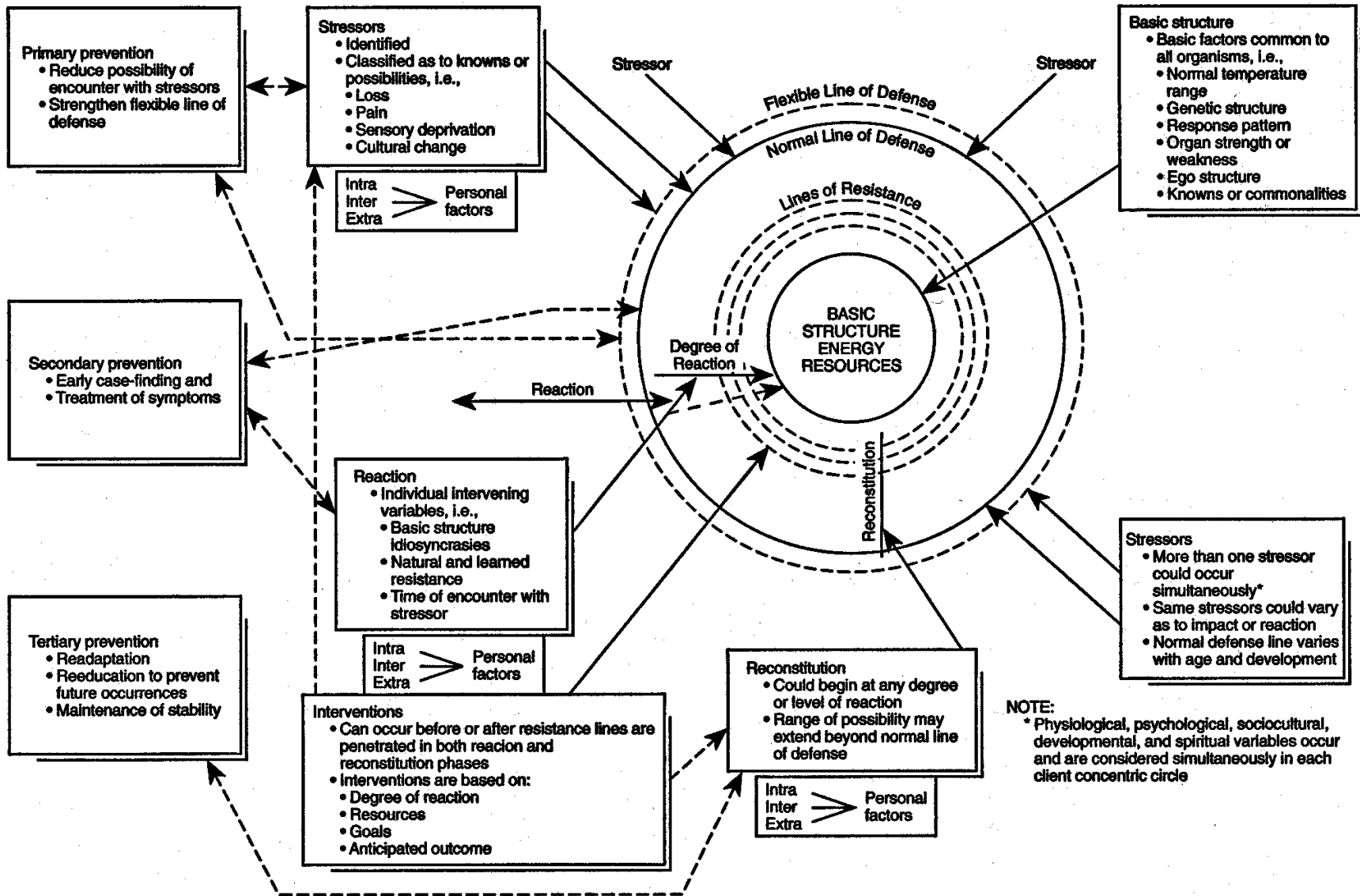


Figure 16-1. The Neuman Systems Model. (From Neuman, B. (1995). *The Neuman Systems Model (3rd ed)* (p. 17). Norwalk, CT: Appleton & Lange.)