Concept Analysis Diagram – Gas Exchange

**Nursing Care**
- Directed toward what contributes to a normal concept and is thereby related to all factors involved in or with the concept. Not always needed to have a normal outcome.

**Attributes**
- Defining characteristics of the concept
- What must occur for the concept to exist

**Antecedents**
- What precedes the concept for it to exist
- Events or incidents that must happen before the concept

**Consequences**
- Untoward events or outcomes that occur due to malfunction within the concept
- Positive events or outcomes that occur due to proper functioning within the concept

**Interrelated Concept**
- Concepts which can affect change in the other
- Concepts which work together to ensure a normal process
- Concepts which if depleted or impaired can cause a negative consequence in the other

**Sub-Concept**
- Critical components of major concept

**Gas Exchange**
The process by which oxygen is transported to cells and carbon dioxide is transported from cells (G)

**Attributes**
- Resp rate – 16-20
- Ph 7.35-7.45
- Oxygen Saturation > 94%
- PaO₂: 85-100
- PaCO₂: 35-45 mmHg
- EtCO₂: 35-45 mmHg
- Age Appropriate Level of Consciousness
- Race-Appropriate Skin Color

**Consequences (Outcomes)**
- Positive
  - Age Appropriate Mobility
  - Capillary Refill < 2 sec
  - Age Appropriate Response to Environment
- Negative
  - Respiratory Compromise
  - Respiratory Distress
  - Respiratory Failure
  - Altered Oxygen Carrying Capacity
  - Hypoxemia
  - Altered Mental Status (Belligerent)
  - *Anoxia

**Interrelated Concepts**
- Mobility
- Coping
- Acid Base Balance
- Perfusion
- Nutrition

**Sub-Concepts**
- Inhalation and Exhalation
- Oxygen Carrying Capacity
- Circulation