Distal Antecedents of the Addiction Syndrome

- Neurobiological Elements (e.g., Genetic Risk, Neurobiological System Risk)
  - Underlying Vulnerability
    - If Yes
      - Psychosocial Elements (e.g., Psychological and Social Risk Factors)
        - If Yes
          - Immediate Neurobiological Consequences Resulting in Desirable Subjective Shift
            - If Yes
              - Exposure to Object or Activity X, Y, or Z

  - If Yes
    - Proximal Antecedents (e.g., biopsychosocial events)
      - Repeated Object Interaction & Desirable Subjective Shifts

Premorbid Addiction Syndrome

- Expression
  - Unique Manifestations & Sequelae
    - Drinking e.g., Liver Cirrhosis
    - Gambling e.g., Gambling Debt
    - Smoking e.g., Pulmonary Carcinoma
    - Intravenous Drug Using e.g., Sepsis

Expressions, Manifestations and Sequelae of Addiction Syndrome

- Biological Cluster (e.g., tolerance, withdrawal, neuroanatomical changes, genetic expressions)
- Psychological Cluster (e.g., psychopathology & comorbidity)
- Social Cluster (e.g., deviant behaviors, delinquency, criminality, social drift)
- Natural History (e.g., exposure, relapse rates, temporal sequencing of symptom progression or recovery)
- Treatment Non-specificity (e.g., CBT, pharmacotherapy)
- Object Substitution (e.g., increase in sedative use during decrease in opioid use)