Chapter 10

Psychosocial, Gender, and Cultural Influences on Pharmacotherapy

Holistic Approach

- Established risk factors influence pharmacotherapeutic outcomes
  - Age
  - Genetics
  - Biologic characteristics
  - Personal habits
  - Lifestyle
  - Environment

Human Integration Pyramid

- Framework of human functional environment and interrelationships
- Impacts success of pharmacotherapy
- These dimensions often overlooked

Six Categories of Human-Integration Pyramid

- Age
- Gender
- Genetic predisposition
- Community-environment factors
- Culture and ethnicity
- Psychological-social-spiritual needs

Figure 10.1 The human integration pyramid care model.
Strong Spiritual or Religious Beliefs Affect Pharmacotherapy Outcomes

- Suffering
- Loneliness
- Despair
- Death
- Hope

Better Drug Compliance

- If client believes treatment is important and beneficial

Outcomes of Pharmacotherapy Influenced by

- Past experiences with medications
- Acceptability of taking medication in social environment
- Certain drugs carry social stigma
- Client’s attitude toward personal health
- Client’s expectations of pharmacotherapy

Ethnicity

- Biologic and genetic similarities
- Shared social and cultural traditions
- Shared perception of health and illness

Structural Variants in Metabolic Enzymes

- Appear more frequently in certain ethnic groups
- Impact pharmacotherapeutics
Variables of Culture and Ethnicity That Impact Pharmacotherapy

- Diet
- Alternative therapies
- Beliefs of health and illness
- Genetic differences

Cultural Diet Can Affect Pharmacotherapeutics

- Foods
- Spices

Cultures May Use Herbs and Alternative Therapies

- Along with modern medicines
- In place of modern medicines

Health Care Is Affected by

- Population growth
- Complex technology advances
- Evolving globalization patterns

Community Factors That Affect Pharmacotherapy

- Urbanization levels
- Age distributions
- Socioeconomic levels
- Occupational patterns
- Industrial growth

Obstacles to Access to Health-Care

- Inadequate health insurance
- Cost of treatment and drugs
- Limited medical care in rural areas
Influence of Illiteracy on Health Care

- 48% of English-speaking population is functionally illiterate
- Prevents client from being able to read drug labels
- Prevents understanding of written treatment instructions
- Prevents reading of brochures regarding medication or disease
- Prevents understanding of importance of pharmacotherapy

Genetic Polymorphisms Created

- Single-base mutation in DNA
- Amino acid change in enzyme
- Enzyme function changes

Enzyme Change

- Increases metabolism of certain drugs
- Decreases metabolism of certain drugs

Enzyme Polymorphisms

Genetic Polymorphisms Identified in Specific Ethnic Groups

- Can be amplified in these groups
  - Stay in same geographical area
  - Marry within ethnic group for many generations

Local and Systemic Responses of Medications Differ Between Genders

- Body composition
- Cerebral blood flow
- Rate of elimination of drug
FDA Requires Drug Research Studies Include

- Subjects of both genders
- Analysis of clinical data by gender
- Assessment of pharmacokinetic and pharmacodynamic differences
- Studies specific to women’s health