Taking a Biocultural Approach to Health Inequities: Theory, Measurement, and Application

Cyleste C. Collins, M.A., M.S.W., Ph.D.
Center on Urban Poverty and Community Development
Cuyahoga County Board of Health
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Ohio: Lack of Prenatal Care in the 1st Trimester
By Race/Ethnicity

Ohio: Low Birth Weight (<2500 g)
By Race/Ethnicity

Ohio: Preterm Birth (<37 weeks)
By Race/Ethnicity

Overview

• Challenges of Preterm Birth, LBW
  • physical
  • social/emotional
  • short-term (e.g., feeding difficulties
  • long term (need for special needs, other services

• Theoretical Orientations/Approaches
• Measurement and Research
• Application
Health Disparities vs. Health Inequities

- Disparities: differences, inequalities
- Inequities: unjust inequalities

Social Determinants of Health

- “...the conditions in which people are born, grow, live, work and age, ...shaped by the distribution of money, power and resources at global, national and local levels.” (World Health Organization)
- Structural conditions
  - Political system
  - Economics/class
  - Racism/Discrimination

The Social Gradient

- Sir Michael Marmot
- Whitehall Studies
- Decrease in social status, decrease in health status

Biocultural Perspective

- Intersection of culture and biology
- Joining of cognitive anthropology (beliefs) and medical anthropology (health)
- “Culture-as-meaning”
  - Groups of people share beliefs/ideas
  - Beliefs and ideas hold meaning
  - Beliefs that conflict can be stressful
  - Stress has direct influence on physical and psychological health

Major Theories to Explain Health Disparities

- Racial-Genetic Model
- Health Behavior
- Socioeconomic Status
- Psychosocial Stress
- Structural-Constructivist Model

(Dressler, Oths, & Gravlee, 2005)
**Structural-Constructivist Model**

- Culture determines what is meaningful (e.g., race, goals, etc.)
- Socially shared understandings (i.e., culture) direct our behavior and understanding of the world
- Social, psychological, biological processes occur at intersection of culture and social structure

(Dressler, Oths, & Gravlee, 2005)

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**Stressors and Resistance Resources**

**Stressors**
- Acute stressors
  - Natural disasters, war
  - Stressful life event (e.g., death of family member, job loss, divorce, etc.)
- Chronic stressors
  - Poverty
  - Social role stressors (e.g., marital stress, job stress, parental stress, financial stress, neighborhood stress)

**Resistance Resources**
- Coping
  - Instrumental/active coping
  - Emotion-focused coping
- Social support
  - Institutional support
  - Formal social structure
  - Voluntary associations
  - Networks

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**The Stress Process**

Stressors (acute, chronic) → Physiological → Psychological → Health Outcomes

Resistance resources (coping, social support)

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**“Embodiment” of Social Inequality**

“Embodiment” of Social Inequality

Sapolsky, 2005)

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**Structural Constraints vs. Structural Violence**

- Structural violence: Crime of commission vs. omission
  - Racism, classism, sexism, heterosexism
- Political economy
- Paul Farmer

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**MEASUREMENT**
### Mediating Factors in the Stress Process

- **Stressors**
- **Resources**

#### Cultural Dimensions of the Stress Process
- Sociocultural structuring of factors
- Cultural definitions of salient events

### Cultural Models

- **Individual models=(idiosyncratic, biographical + shared/cultural)** (Shore, 1996)
- **Cultural consensus model-agreement**
  
  Shore, 1996; Romney, Weller, & Batchelder, 1984

### The Cultural Consensus Model

\( R_1, R_2, R_3, R_4, R_5, R_6, \ldots, R_n \)

1. **Determine R’s relative degree of knowledge**
2. **Calculate a consensus set of responses**, giving higher weight to R’s who share more knowledge

### Linking Cultural Models to Individual Behavior: Cultural Consonance

- **Cultural model of a domain** (what people believe)
- **Cultural consonance** (individual ability to meet expectations of the model)
- **Individual behavior** (explaining why people do what they do)

### Cultural Consonance

- **Low cultural consonance**
- **High cultural consonance**

- **Cultural Models**
  - Cultural constructions or expectations of how life is to be lived
  - A modest lifestyle
  - Participation in social support systems

- **Structural Constraint**
  - High income inequality
  - Unstable employment
  - Low education levels
  - Social discrimination
  - Poor health care and social services
Cultural Consonance and Health

• Direct relationship between cultural consonance in lifestyle and income level of neighborhood (lower SES neighborhood—lower consonance) (Dressler, et al.)
• Structural and cultural factors in cervical cancer screening: Cultural consonance affects likelihood of getting PAP (Chavez et al., 2001)

Cultural Models of the Body

• Ideal body: symbol of power, high social status
• Those who achieve the ideal are among the society’s most socially powerful
• “…thinness in the midst of abundance… projects the traditional message of power, and brings such social boons as upward mobility.”

Obesity

• Obesity a result of coping/survival strategy:
  – Racism
  – Sexism, heterosexism
  – Trauma
  – Classism
  – Poverty
• Healthy relationships to body depend on access to “economic, cultural, racial, political, social and sexual justice” (p. 559)

Job Strain and Birth Outcomes

• High demand, low control jobs=higher job strain, associated with lower birth weight babies, effects greater for African American women
• Felt discrimination: three times more likely to be under job strain

Risks for LBW and Preterm Birth

• LBW
  – Perceived racism (+passive coping)
  – “Fetal programming” (having been born LBW yourself)
  – Lifetime residence in a low income neighborhood
• Preterm Birth
  – Lifetime exposure (and recent exposure) to racism and discrimination (active coping attenuates effect)
Rethinking Health Inequities

- Cultural Context
- Structural Constraints
- Place (access, cultural standards)
- Race (racism, discrimination, social policy)
- Health Behaviors (that increase risk)

Ability to achieve cultural standards

Health

Rethinking Health Inequities

- Cultural Context
- Structural Constraints
- Race
- Economics/Policy
- Place
- Health Behaviors

Ability to achieve cultural standards

Health

APPLICATION

Applying the Biocultural Approach in Practice

- Cultural models tend to influence health-care decisions
- Interactions between physicians/social workers/other providers and patients/clients

Service Providers: Working with Mothers & Children

- Pelto (2008)
- (1) Interventions firmly rooted in the approach of the family of origin
- (2) Social service providers must see selves as servants to society (power issues)
- (3) Being aware of social-emotional values, attitudes and expectations with regard to health, nutrition, etc.

Local Initiatives: MomsFirst

- Addresses "unique contextual and community issues" in target areas, related to perinatal health in high risk cases
- Partnerships, Teen advisory groups
- Community Health Worker, home visits, broad help
- Lower incidences of infant mortality, very low birth weight babies than expected, compared with Cle rates
MomsFirst

- Multi-pronged approach, addressing the "whole" person, participants report being helped, not just with (physical) health issues
- Key Aspects: Relationships between participants and Community Health Workers

East Cleveland Teen Collaborative

- Kresge Foundation: Safety Net Enhancement Initiative site (one of many promising initiatives)
- Focus: Reducing health disparities among underserved populations
- Model: Community, agency collaboration
- East Cleveland: Reducing disparities by increasing empowerment, hope, advocacy, education, engagement, leading to changed physical environment, changed models

Summary

- Biocultural Approach
- Structural disadvantage excludes people from full realization of shared cultural goals
- This is highly stressful
- Stresses associated with worse physical and psychological health, including risk for preterm birth, low birth weight

"...if the major determinants of health are social, so must be the remedies." We need to understand the "causes of the causes: the social conditions that give rise to high risk of non-communicable disease whether acting through unhealthy behaviors or through the effects of impossibly stressful lives" (Marmot, 2005, p. 1102)