



# **Family Processes and Health Promotion**

Officers Club – North Conference Room

## Division of General Pediatrics

# Developmental Assessment Center

- 2015 -Department of Pediatrics to assume financial and clinical responsibility
- Remodel of current DOH building
  - On Health Sciences campus
- Assessment Clinics
  - Child Development Clinics
  - Itinerant (Rural) Clinics
- Longitudinal Follow-up Clinics
  - Periodic assessment of high-risk populations
    - Neonatal Follow-up Program
    - Primary Children's Hospital Heart Center follow-up
    - Other high-risk populations
  - Establishment of a robust database



Division of General Pediatrics

# Developmental Assessment Center

- For more information contact
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    - Chief, Division of General Pediatrics
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## Division of General Pediatrics

# Developmental Assessment Center

- Opportunities for Collaboration
  - Clinical
    - Psychologists needed to perform developmental testing
  - Educational
    - Site for trainees to gain developmental assessment skills
  - Research
    - Currently following NICU graduates
    - Will begin longitudinal neurodevelopmental follow-up of children with complex congenital heart disease
    - Additional high-risk populations will be added
    - Establishment of a robust database for researchers
  - Administrative
    - Recruiting a DAC Psychology Director



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**Joseph B. Stanford, MD, MSPH**

Professor  
Department of Family and Preventive Medicine

Director  
Office of Cooperative Reproductive Health

October 2014

# Research focus: couples and fertility

- Intentions, Behaviors with behavioral family planning
  - Office of Population Affairs
- Natural fertility treatment, outcomes
  - Women's Reproductive Health Foundation
- Fertility treatment choices and outcomes
  - NICHD
- Peri-conception exposure assessment
  - PI Porucznik, NIEHS
- Pregnancy intentions (qualitative inquiry)
  - CDC

# Future possibilities

- Prospective cohorts or RCTs for managing fertility from couple and family perspectives
  - Family planning
    - What makes for in(effective) use of behavioral methods
  - Subfertility (aka infertility)
    - Prevention by streamlined education in fertile window
    - Prospective tracking of treatment trajectory
  - Women's health
    - Impact of education in self-monitoring of biomarkers
  - Teen pregnancy prevention
    - A third way, not “just say no,” and not “just say yes”





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# Example: Adolescent Obesity

(Coffield, Metos, Utz, Waitzman, 2011)

**Purpose:** To evaluate the effects of school wellness policies mandated by the 2004 Child Nutrition and WIC Reauthorization Act on the prevalence of overweight and obesity among adolescents.

**Data:** Utah Population Database, birth certificates and driver license linked to school policy data for a cohort of children born 1990 to 1992

## Key Findings:

- Each additional component included in a district's wellness policy was associated with as much as: 3.2% lower odds in the prevalence of adolescent overweight (OR = .968; 95% CI = .941-.997). Effect was primarily driven by nutrition related policies, not physical activity.
- When multivariate regression models controlled **for individual, maternal, and familial characteristics**, as well as **characteristics of school district (environment)**. The policy effects were dampened, but remained significant.

## Example: Adolescent Obesity (Metos, VanDerslice, Utz, Waitzman, Porucznik, 2012)

Purpose: To evaluate the effects of high school nutrition and physical activity *practices* on the prevalence overweight and obesity among adolescents.

Data: Utah Population Database, birth certificates and driver license linked to school policy data for a cohort of children born 1990 to 1992; School Health Profiles records, Behavioral Risk Factor Surveillance Survey records, NCES Common Core of Data high school records.

### Key Findings:

School practices were not related to their district having a mandatory policy related to that practice.

Of the 42 high school practices examined, only exempting students from PE was associated with the risk of obesity ( $RR_a=0.76$ , 95% CI: 1.16-1.74,  $p<0.02$ )

Individual, family and school attributes were significantly associated with high BMI:

- Maternal obesity tripled the risk adolescent overweight ( $RR_a=3.08$ , 95% CI: 2.54-3.76,  $p<0.001$ ) and resulted in a six-fold risk of obesity ( $RR_a=6.06$ , 95% CI: 4.988-7.52,  $p<0.001$ ).
- American Indian adolescents had twice the risk of obesity ( $RR_a= 2.09$ , 95% CI: 0.91-4.80,  $p <0.01$ ) and Black adolescents had almost four times the risk of overweight when compared to White adolescents ( $RR_a=3.80$ , 95% CI: 1.37-10.48,  $p<0.01$ ).
- When the population of a high school was  $<70\%$  -White, the risk of adolescent obesity was greater than in a less diverse school ( $RR_a=1.43$ , 95% CI: 1.16-1.74,  $p<0.01$ ).

# Current Projects

*School Policy, Familial Resources, and Adolescent Food Choice* (Metos, Utz)

*University of Utah Diabetes Prevention Project*  
(Graham, Marcus, Metos, Singleton)

*Sugar Babies School Family and Community Project* (Metos, MacKenzie)



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# Ashley Elrick

- Communication department
- PhD student- First year
- Research interests:
  - Interpersonal relationships (families & romantic partners)
  - Health communication
  - Human-animal interactions

# Education/Research

- Psychology BS
  - Thesis: Exploring how pet attachment and existential connectedness influence loneliness
- Interpersonal Communication MA
  - Thesis: Dog ownership as a catalyst of conflict and relationship maintenance in romantic relationships
- Communication PhD
  - Interesting in research that combines interpersonal and health communication with companion animals



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# Social Contexts of Health and Youth Development

Ming Wen

Professor

Department of Sociology

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# My Background

- Sociologist (quantitative), social demographer, social epidemiologist
- Outcomes: **health** (physical health, mental health, health behavior, healthcare), **developmental outcomes** (e.g., school engagement, life satisfaction, positive youth development)
- Social contexts: **neighborhood** social and built environments, **family** contexts (e.g., family structure, parent-child socialization), **school** environments (teacher-student and student-student relationships; other school factors), **peer characteristics** (e.g., peer support, peer prevalence of substance use)
- Intra-personal factors: **self-efficacy, locus of control**
- Settings: **USA** and mainland **China**

# Current and Future Research

- What are individual- and neighborhood-level factors of obesity and physical inactivity in the United States?
  - Most exciting findings: a nationwide multilevel study shows that both built environments (e.g., walkability and proximity to parks) and social environments (i.e., socioeconomic status and ethnic composition) at the census tract level are significantly linked to individual odds of obesity over and above individual risk factors. (collaborators: Jessie Fan and Lori Kowaleski-Jones in FCS)
  - Future direction: **cross-sectional study of built environmental factors** and other health outcomes; **longitudinal study** to address neighborhood exposure trajectories and their health impacts across the life course; **multilevel intervention study preventive against obesity**
- How left-behind children of rural-to-urban migrant parents fare in terms of developmental outcomes compared to not-left-behind children in rural China?
  - Most exciting findings: Left-behind children are disadvantaged in some outcomes (e.g., psychological well-being and health behavior), advantaged in other outcomes (e.g., educational aspiration), and no different in overall positive youth development levels compared to the not-left-behind (collaborators: developmental psychologists in China)
  - Future: **collecting data in China** among four groups of youth: left-behind rural youth, not-left-behind rural youth, rural-to-urban migrant youth, urban native youth; **then compare their developmental outcomes**



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Jim Sibthorp  
Professor, College of Health  
Department of Parks, Recreation, & Tourism

## Previous Work

- Out-of-school time programs for youth
- Outdoor education and summer camps
- Program Quality Assessment & Outcomes
- Evolution from program factors to families and parents

# Future Directions

- Recreation Programs & Leisure Time
  - Detrimental
  - Diversionary
  - Restorative
  - Developmental
- Conscious Selection/Use
- “Prescriptive Play”
  - resources for health care providers and the general public (e.g., Yelp for healthy recreation)

# Recreation/Leisure Lens to Health Research

- Intrinsic Interest fuels action
- Compensatory role of unobligated time

## FAMILY PERSPECTIVE TO HEALTH

Individuals Embedded in Family Units

Family Foundation for Other Relationships Facilitate Health

Chronic Illness Management is Interdependent



Cindy Berg  
Department of Psychology



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# Risk to Resilience Project

Patricia K. Kerig  
Department of Psychology

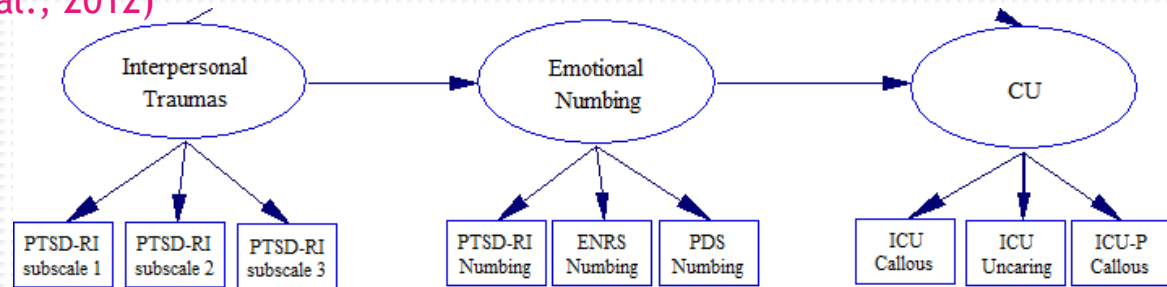
# Past and current research

- Over 90% of youth in detention have experienced at least one ( $M = 14$ ) traumatic event; up to 30% of boys and 50% of girls meet criteria for PTSD (Kerig et al., 2009, 2010, 2012, 2013, 2014)
  - PTSD predicts severity and number of offenses (Becker & Kerig, 2011)
  - PTSD predicts recidivism (Becker, Kerig et al. 2012)
- What are the underlying mechanisms linking trauma to delinquency?
  - Cognitive (Bennett & Kerig, 2014-a)
    - Appraisals, peritraumatic reactions
  - Emotional (Bennett et al., 2013; Bennett & Kerig, 2014-b)
    - Emotional numbing, dysregulation, affect recognition
  - Interpersonal (Hudak & Kerig, 2013)
    - Attachments to parents, peers, romantic partners
  - Biological (McGee, Bennett, Kerig, et al., under review; Bennett, Kerig, & Modrowski, in preparation)
    - Respiratory sinus arrhythmia, heart rate, electrodermal reactivity



# Key findings and future directions

- Acquired callousness-unemotional (CU) traits
  - Unlike primary psychopathy, callous veneer as an adaptation to chronic interpersonal trauma
  - Emotional numbing mediates the link between interpersonal trauma and CU (Kerig et al., 2012)



- Are there biological markers of acquired CU that would better ID traumatized youth and differentiate them from “budding psychopaths”?
  - Berntson et al.’s’ (1994, 1996) taxonomy of patterns of sympathetic and parasympathetic responding:
    - *Coinhibition*: both systems withdraw or decrease. Most prevalent amongst youth exposed to family hostility (Salomon et al., 2000).
    - *Reciprocal sympathetic*: sympathetic activation and parasympathetic withdrawal (EDR increases and RSA decreases). Protective against development of aggression in youth exposed to family violence (El Sheikh et al., 2009).

## *From Risk to*




- Patricia K. Kerig
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- Thanks to:
  - Stephen Becker
  - Diana Bennett
  - Shannon Chaplo
  - Cristina Hudak
  - Crosby Modrowski
  - Andrew McGee
  - Our army of undergrads
  - The courageous youth who share their stories with us



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# How is Risk for Depression Transmitted from Mother to Child? Testing the Programming Hypothesis via Epigenetic Methods

Elisabeth Conradt

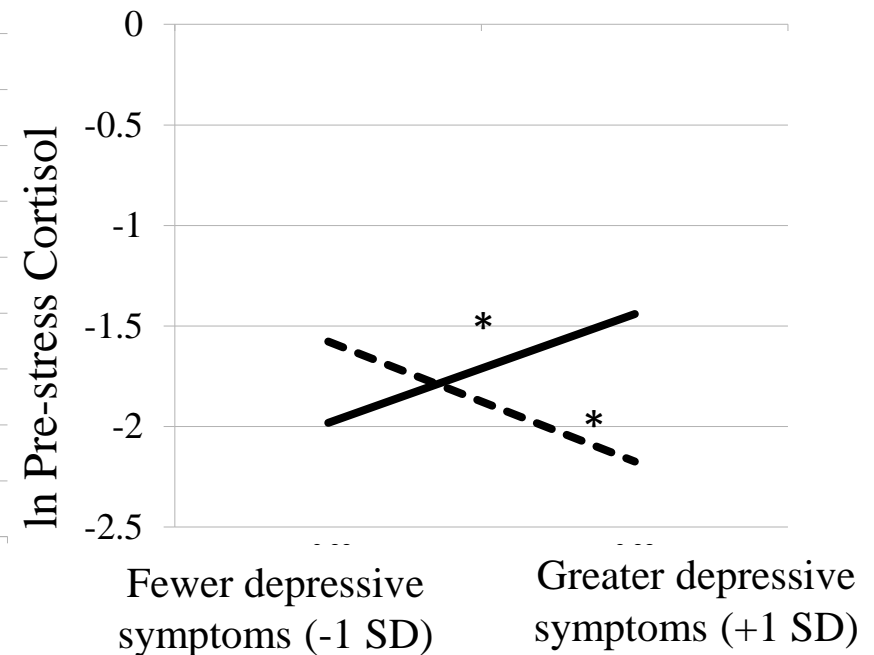
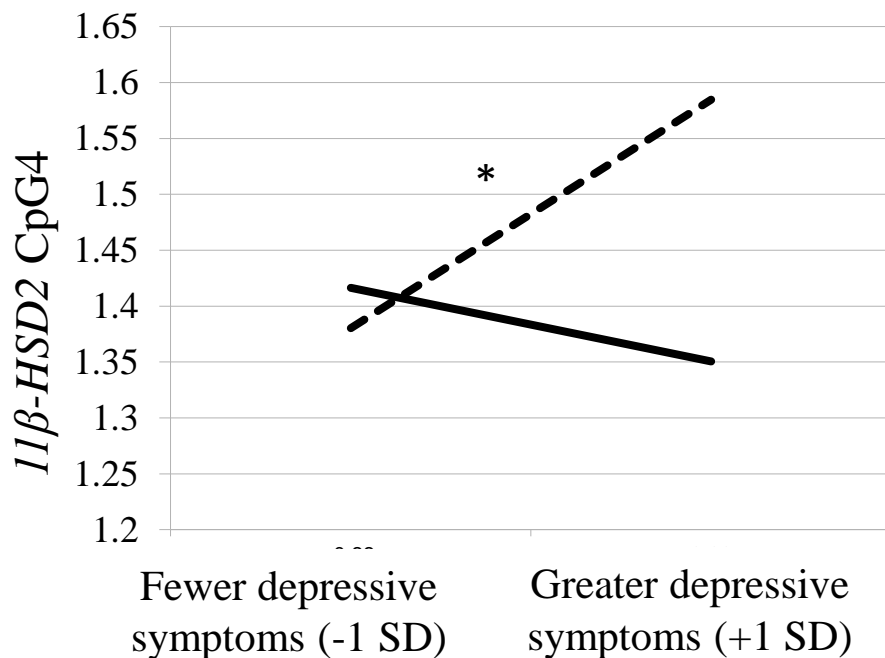
Department of Psychology

Mothers who are depressed exhibit altered responses to stress, and they have infants with altered basal cortisol levels compared to their non-depressed counterparts.

These mothers may “transmit” problematic stress responses to their infants via epigenetic mechanisms, both pre-and post-natally.

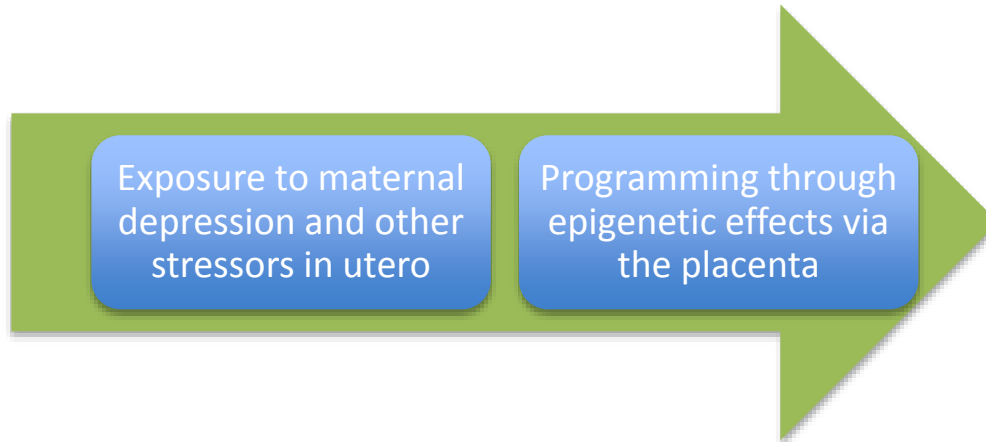
### Evidence for **postnatal** programming

----- Less maternal sensitivity (-1SD)  
———— Greater maternal sensitivity (+1SD)

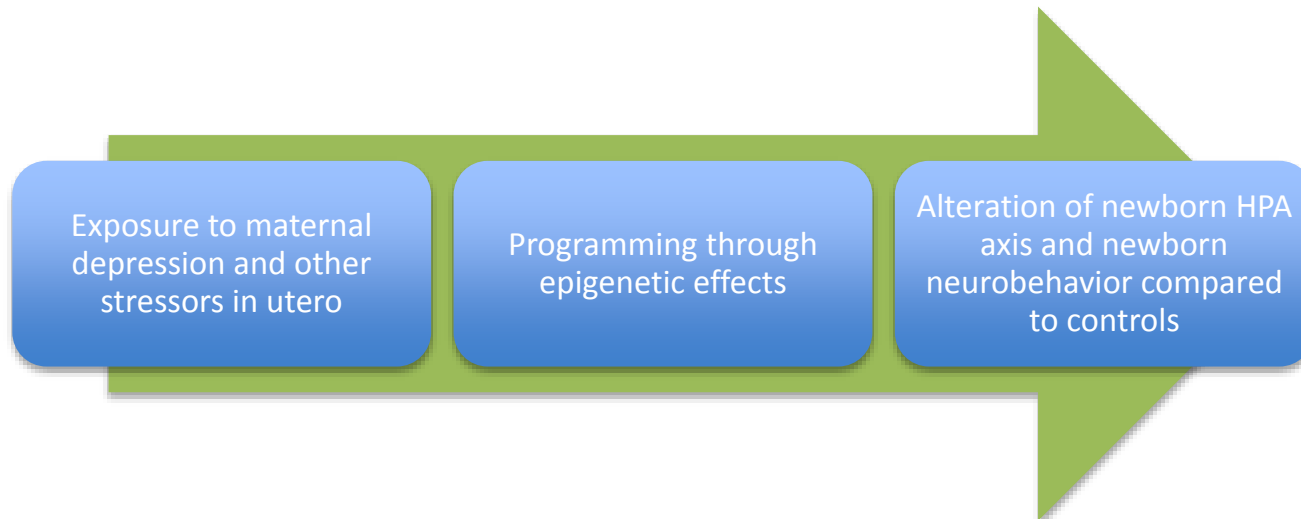


## Evidence for **prenatal** programming?

Study 1: Is exposure to maternal depression in utero related to DNA methylation of genes which regulate the newborn response to stress?



Study 2: Can we predict behavioral and physiological consequences of prenatal exposure to maternal depression via epigenetic processes?







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**Sonia Salari, Ph.D.**

**Department Family & Consumer Studies**

**Interests: Aging, Family Violence, Social Policy**

**Quality of Life & Threat to Public Health**

**Family Violence over the Life Course: Research, Policy and Practice**

**Intimate Partner Violence**

**Child Maltreatment**

**Elder Abuse**

**Family Violence Injury is Preventable**

**Isolation is a component**

**–Prevents knowledge & intervention**

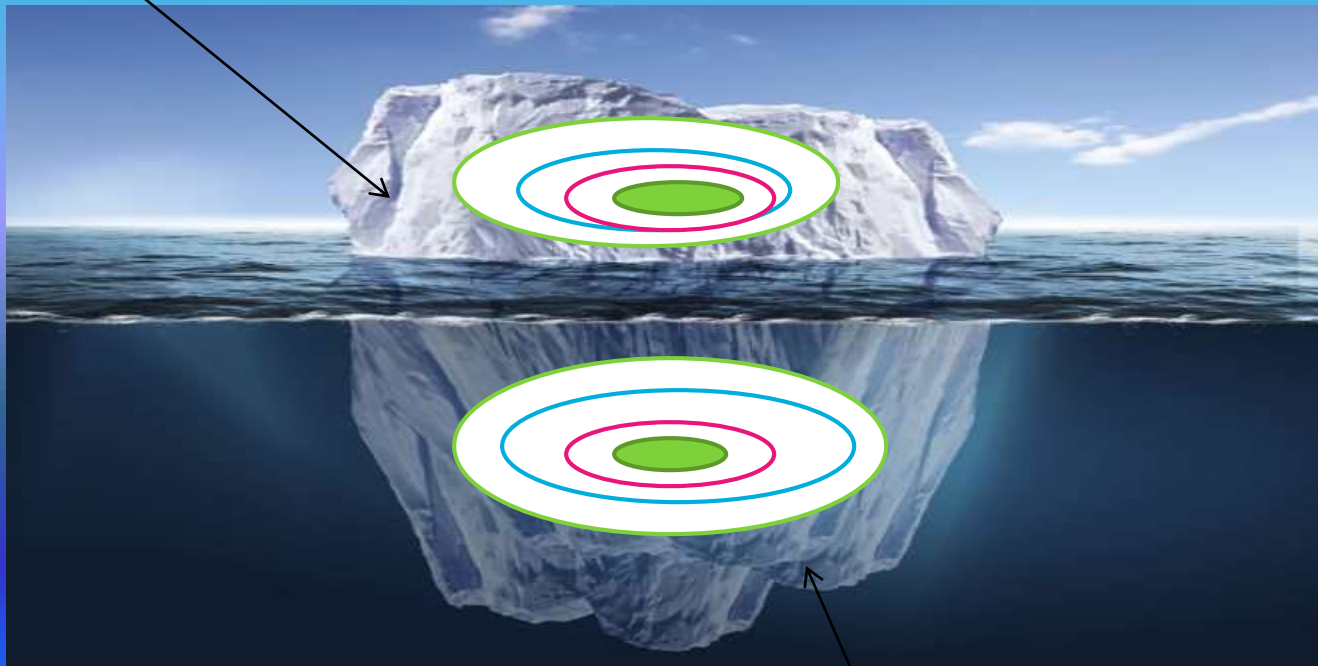
**Family level social support**

**Community impact & response (shelters, police)**

**Socio-cultural component –Norms of Public vs. Private**

# Ecological Iceberg Of Family Violence

- Known



Unknown

# Interventions—not a band-aid or OSFA

## Poor Quality

- no intervention, walk around block
- mandatory arrest
- dual arrests
- Batterer Intervention Programs BIP

## High Quality

- home visits decrease child abuse
- apply toward other vulnerable groups?



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# *Lisa M. Diamond*

- ❖ Department of Psychology, jointly appointed with Gender Studies
- ❖ Background in developmental and social psychology
- ❖ Primary interests in sexuality, attachment, couples, sexual identity/orientation, and their implications for health
- ❖ Multiple methods: Qualitative interviews, assessments of autonomic functioning, salivary cortisol, estrogen, testosterone, oxytocin, use of daily diaries to capture everyday family/couple life

# *Lisa M. Diamond*

- ❖ CURRENT BIG QUESTIONS:
- ❖ How do life experiences, both in infancy and subsequently, influence the psychological and neurobiological processes that end up shaping enduring patterns of sexuality and relationship functioning?
- ❖ What are the factors that drive life-course changes in these patterns?
- ❖ Are individual differences in patterns of autonomic and neuroendocrinological functioning CAUSES or EFFECTS of life events? Or both? When? How?