

Seminar in Medical Sociology: Early Origins of Adult Health

Purdue University (SOC 674)
Syllabus, Fall 2005

Course Description

This seminar examines the how early life experiences shape health status in adulthood. Readings for this emerging area of inquiry are drawn from medical sociology, sociology of aging, and life course epidemiology.

Instructor

Dr. Kenneth F. Ferraro
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Office Hours: Monday 10:45-11:15 in Young Hall; Tuesday 10:30-11:20 in Stone Hall; other times by appointment.

Stone Hall 335, 765.494.4707

Young Hall 824, 765.494.6388

Class Meetings

Tuesday and Thursday 1:30-2:45 in University Hall 319.

Required Readings

Packet of journal articles; supplementary and additional readings as appropriate.

Course Content and Educational Philosophy

My educational philosophy emphasizes *learning by doing* rather than just learning by absorbing lectures. Some assignments are structured in the classical “problem solving” pedagogical approach advanced by John Dewey. In addition, I invite students to help *structure* the course—this is *our* seminar, not my seminar. Please draw to the attention of the class speakers discussing topics related to the course.

Course Requirements

All course documents prepared with a proportional font should be printed in font size 11 or greater. Include a “word count” at the end of each document submitted identifying the words counted (e.g., title, text, references). Five percent point deductions transpire each weekday that a paper is late.

I prefer paper submission of documents. If this presents a hardship at certain times (e.g., travel, family duties), electronic submission is acceptable.

1. Reading assignments and class participation: A reading list specifies the readings to be completed for each day's class. This is a seminar, and class discussion is vital to its success. Behavioral expectations for our class times focus on maintenance and leadership roles.

Maintenance roles:

1. Attendance.
2. Sharing reasoning processes.
3. Supporting and encouraging group discussion.
4. Backing up experiences, feelings, and "hunches" with theoretical references.

5. Acknowledging various viewpoints.
6. Utilizing practical experience to explain theoretical data.

Leadership roles:

1. Offering pertinent theoretical and/or empirical data related to assigned readings.
2. Taking risks based on scientific knowledge, accepting the possibility of failure.
3. Building on other's contributions with theoretical and/or empirical data.
4. Building on statement(s) by others to make broader generalizations.
5. Utilizing *optional* readings to enhance discussions.
6. Critiquing arguments or analyses presented by authors, classmates, or the instructor.
7. Bringing pertinent articles or books which may enhance discussion of seminar topics.
8. Posing questions to challenge or clarify a statement.

40 points possible.

2. **Discussion Facilitator:** Be prepared to facilitate class discussion with answers to the following questions for each day's reading. I will give you a choice as to assignment: aforementioned dates or "jack of spades."

- 1) What insight does the reading provide into the core questions for this *part* of the course?
- 2) What are the main points from the readings?
- 3) What did you find most interesting?
- 4) List at least one question or criticism that you have about the reading.

20 points.

3. **Comment and reply:** Some journals publish "commentary" which usually takes the form of critical assessments of published works. While there may be praise, the comments are more often critical in a serious but respectful tone. You are to write a comment and reply to be submitted by 5:00 pm the day *before* an assigned reading. There are two parts to the Comment and Reply. Select an article that is an empirical report before October Break. Chapters are *not* eligible for this assignment, but optional articles (and books) are eligible. There are some very brief articles that are **not** suited for this assignment. Select an article that is at least 4-5 pages. If uncertain, please see the instructor.

Comment. First, select at least one full-length article and critique it as though you were submitting commentary to the Editor. (If you want to critique a very brief article, it is better to select 2 articles from the same journal and do them in a pair. They need not be from the same issue or volume.) Prepare your comments to discuss what detracts from the scientific merit of the published paper. Attempt to be even-handed in your comments and cite appropriate references to justify your criticism. The comment should be no longer than 3 double-spaced pages (1,050 words plus references).

Reply. Second, imagine that you are the first author of the paper being critiqued. Prepare a brief pseudo-reply (no longer than 2 pages--700 words). Again, show respect for the person critiquing your work, but rebut or acknowledge their criticism of your work. 30 points possible.

4. **Research paper:** Students will write a research paper that will be reviewed by fellow students and the instructor. Papers previously or simultaneously submitted to other classes are not acceptable; **this is to be original work**. Co-authored papers are permissible, but should reflect the intellectual contributions of two classmates. Co-authorship with faculty members or students not in this class are not acceptable. Ideas, models, and/or hypotheses developed *directly* in conjunction with your major professor are inappropriate for the focus of this paper.

a. Purpose and Bibliography -- Students should prepare a brief statement of purpose (i.e., basic thesis, approach) and a *preliminary* bibliography for their paper on a subject of interest related to the course. The Purpose should not exceed two double-spaced pages (700 words). Due date is **October 7, 2005** or sooner. I recommend but do not require that you annotate your bibliography.

b. Complete Paper -- Students have three options for the final paper: (1) empirical report, (2) analytic review of the literature, or (3) research proposal.

(1) Empirical report: Several data sets are available from the ICPSR. Perhaps you have a data set you are currently working with (e.g., dissertation data), from which a unique research paper may be developed. Empirical reports are not to duplicate other research you are doing. Empirical reports are the building blocks of science. Craft the paper to resemble an article for the journal to which it would be an appropriate submission.

(2) Analytic review of the literature: This is the typical "research paper" derived from library materials. Although it does not involve data analysis in the strictest use of the phrase, research papers should be analytic endeavors. Do not simply summarize research; rather, critique and analyze it, then synthesize and integrate from it in an attempt to *extend* the literature. For an exemplar of this type of paper, see Idler and Benyamini (1997) *Journal of Health and Social Behavior*.

(3) Research proposal: Research proposals may make use of existing data or propose to collect new data. If doing this option, do not see cost as an insurmountable barrier to developing a good research proposal. Assume that plenty of money is available for meritorious projects. If you would like, I can supply you with forms for an application to the National Institutes of Health. *Dissertation grants may be available from either NIA, AHCPR, or other NIH agencies. You could be writing a draft of a genuine proposal.* All proposals should have the following research plan designed for NIH applications:

Research Plan. Organize Sections A-D of the Research Plan to answer these questions. (A) What do you intend to do? (B) Why is the work important? (C) What has already been done? (D) How are you going to do the work? Do not exceed 25 double-spaced pages for Sections A-D (NIH allows 20 single-spaced pages). You may use any page distribution within this overall limitation.

A. **Specific Aims.** State the broad, long-term objectives and describe concisely and realistically what the specific research described in this application is intended to accomplish and any hypotheses to be tested.

B. **Background and Significance.** Briefly sketch the background to the present proposal, critically evaluate existing knowledge, and specifically identify the gaps which the project is intended to fill. State concisely the importance of the research described in this application by relating the specific aims to the broad, long-term objectives.

C. **Progress Report/Preliminary Studies.** For new applications a report of the principal investigator/program director's preliminary studies is useful but optional.

D. **Research Design and Methods.** Outline the research design and the procedures to be used to accomplish the specific aims of the project. Include the means by which the data will be collected, analyzed, and interpreted. Describe any new methodology and its

advantage over existing methodologies. Discuss the potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the aims. Provide a tentative sequence or timetable for the investigation. You may attach appendices if necessary and appropriate.

The points possible for the research paper, in any of the three forms, are 120: 20 points for Purpose and Bibliography; 20 points for peer review (draft submitted by November 10), and 80 points for the final paper. Papers will be presented to the class near the end of the semester. Complete papers are due 12.13.05.

5. **Peer review of student papers.** Each student will write brief reviews of drafts of two papers submitted on November 10. 20 points.

<u>Evaluation Method</u>	<u>Points Possible</u>	<u>Due Date</u>
1. Reading assignments & class participation	40	class meetings
2. Discussion facilitator	20	class meetings
3. Comment and reply (before October Break)	30	TBA
4. Research paper		
a. Purpose and Bibliography	10	10/7
b. Final paper	80	12/13
5. Peer review of student papers	<u>20</u>	11/17
Total	200	

Minimum percentage points needed for letter grades: A, 90; B, 80; C, 70; D, 60.

Schedule of Topics and Readings

August 23 Introduction

August 25 Approaches for the Study of Social Factors and Health

Ben-Shlomo, Yoav and, Diana Kuh. (2002). A Life Course Approach to Chronic Disease Epidemiology: Conceptual Models, Empirical Challenges and Interdisciplinary Perspectives. *International Journal of Epidemiology* 31:285-293.

Elder, Glenn, H., Jr. 1998. The Life Course as Developmental Theory. *Child Development* 69:1-12.

Forrest, Christopher B. and Anne W. Riley. (2004). Childhood Origins of Adult Health: A Basis for Life-Course Health Policy: A Plea for Policy Attention to the Way Child Health Problems Affect a Person's Entire Lifespan. *Health Affairs* 23(5):155-64.

Optional: Kuh, Diane and Y. Ben-Shlomo (Eds.), 1997. *A Life Course Approach to Chronic Disease Epidemiology*. New York: Oxford University Press.

August 30 Approaches, Part II

Singhal, Atul and Alan Lucas. (2004). Early Origins of Cardiovascular Disease: Is There a Unifying Hypothesis? *The Lancet* 363 (9421):1642-1645.

Worthman, Carol M. and Jennifer Kuzara. (2005). Life History and the Early Origins of Health Differentials. *American Journal of Human Biology* 17:95-112.

Optional: Elder, Glenn, H., Jr. 1994. Time, Human Agency, and Social Change: Perspectives on the Life Course. *Social Psychology Quarterly* 57:4-15.

Optional: International Longevity Centre, UK. 2005. *The Implications for Training of Embracing A Life Course Approach to Health*. Geneva, Switzerland: World Health Organization. Accessible at: http://www.ilcuk.org.uk/downloads/health/ilc_12pp.pdf

September 1 The Barker Hypothesis

Barker, David J. (1997). Maternal Nutrition, Fetal Nutrition, and Disease in Later Life. *Nutrition* 13:807-813.

Roseboom, T. J., Van Der Meulen, J. H., Ravelli, A. C., Osmond, C., Barker, D. J., and Bleker, O. P. (2003). Perceived Health of Adults after Prenatal Exposure to the Dutch Famine. *Paediatrics and Perinatal Epidemiology* 17(4):391-397.

Optional: Barker, D. J. (2003). *The Best Start in Life*. London: Century

September 6 Clarifying the Approach: Can Sociology and Epidemiology Work Together?

Kaplan George A. (2004). What's Wrong with Social Epidemiology, and How Can We Make It Better? *Epidemiologic Reviews* 26:124-35.

Lynch J, Smith GD. (2005). A Life Course Approach to Chronic Disease Epidemiology. *Annual Review of Public Health* 26:1-35.

Pearlin, Leonard I, Scott Schieman, Elena M. Fazio, and Stephen C. Meersman. (2005). Stress, Health, and the Life Course: Some Conceptual Perspectives. *Journal of Health and Social Behavior* 46:205-219.

September 8 Fetal Origins of Adult Health

Barker, D. J. P. (2001). Fetal and Infant Origins of Adult Disease. *Monatsschrift Kinderheilkunde* Supplement 1; S2-S6.

Barker, DKP, JG Eriksson, T. Forsén, and C. Osmond. (2002). Fetal Origins of Adult Disease: Strength of Effects and Biological Basis. *International Journal of Epidemiology* 31:1235-1239.

Ellison Peter T. (2005). Evolutionary Perspectives on the Fetal Origins Hypothesis. *American Journal of Human Biology* 17(1):113-118.

Optional: Barker, D. J. P. (1998). *Mothers, Babies and Health in Later Life*. Edinburgh: Churchill Livingstone.

Optional: Osmani, Siddiq and Amartya Sen. (2003). The Hidden Penalties of Gender Inequality: Fetal Origins of Ill-Health. *Economics and Human Biology* 1:105-121.

September 13 Birth Weight and Well-being

Cheung, Yin Bun. (2002). Early Origins and Adult Correlates of Psychosomatic Distress. *Social Science and Medicine* 55; 937-948..

Dooley, David and Joann Prause. (2005). Birth Weight and Mothers' Adverse Employment Change. *Journal of Health and Social Behavior* 46:141-155.

Sayer, Avan A, Holly E. Syddall, Helen J. Gilbody, Elaine M. Dennison and Cyrus Cooper. (2004). Does Sarcopenia Originate in Early Life? Findings from the Hertfordshire Cohort Study. *Journal of Gerontology: Medical Sciences* 59A:930-934.

September 15 Adverse Childhood Experiences and Health Behavior

Abbey, Antonia, Andrews, Frank M, and Halman, L. Jill. (1994). Psychosocial Predictors of Life Quality: How Are They Affected by Infertility, Gender, and Parenthood? *Journal of Family Issues* 15(2):253-271.

Dietz, Patricia M, Alison M. Spitz, Robert F. Anda, David F. Williamson, Pamela M. McMahon, John S. Santelli, Dale F. Nordenberg, Vincent J. Felitti, and Juliette S. Kendrick. (1999). Unintended Pregnancy among Adult Women Exposed to Abuse or Household Dysfunction During Their Childhood. *Journal of the American Medical Association* 282(14), 1359-1364.

Dube, Shanta R, Robert F. Anda, Vincent J. Felitti, Daniel P. Chapman, David F. Williamson, and Wayne H. Giles. (2001). Childhood Abuse, Household Dysfunction and the Risk of Attempted Suicide Throughout the Life Span: Findings From the Adverse Childhood

Experiences Study. *Journal of the American Medical Association* 286(24), 3089-3096.
Hillis, Susan D, Robert F. Anda, Vincent J. Felitti, and Polly A. Marchbanks. (2001). Adverse Childhood Experiences and Sexual Risk Behaviors in Women: A Retrospective Cohort Study. *Family Planning Perspectives* 33(5), 206-211.
Jefferis, Barbara J M H, Chris Power, Hilary Graham, and Orly Manor. (2004). Effects of Childhood Socioeconomic Circumstances on Persistent Smoking. *American Journal of Public Health* 94(2), 279-285.

September 20 Adverse Childhood Experiences and Adult Health

Felitti, Vincent J. (2002). The Relationship of Adverse Childhood Experiences and Adult Health: Turning Gold into Lead. *The Permanente Journal* 6, 44-47.
Felitti, Vincent J., Robert F. Anda, Dale Nordenberg, David F. Williamson, Alison M. Spitz, Valerie Edwards, Mary P. Koss, and James S. Marks. (1998). Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults. *American Journal of Preventive Medicine* 14(4), 245-258.
Maestripieri, Dario. (2005). Early Experience Affects the Intergenerational Transmission of Infant Abuse in Rhesus Monkeys. *Proceedings of the National Academy of Sciences* 102:9726-9729.
Williamson, D. F., T. J. Thompson, R. F. Anda, W.H. Dietz and V. Felitti. (2002). Body Weight and Obesity in Adults and Self-Reported Abuse in Childhood. *International Journal of Obesity* 26, 1075–1082.

September 22 *Aging and Stress: Biological and Behavioral Perspectives*

1:30-5:00, West Faculty Lounge, Purdue Memorial Union.

Linda K. George, PhD - Professor of Sociology and Associate Director of the Center for the Study of Aging and Human Development at Duke University
Monika Fleshner, PhD - Associate Professor in the Department of Integrative Physiology, member of the Center for Neuroscience, and Director of the Neuroimmunophysiology Laboratory at the University of Colorado at Boulder

September 27 Reflections on Symposium: Stress over the Life Course

Finch. Caleb E. and Eileen M. Crimmins. 2004. Inflammatory Exposure and Historical Changes in Human Life-Spans. *Science* 305(5691):1736-1739.

September 29 Childhood Conditions and Adult Health

Harper Sam, John Lynch, Wan-Ling Hsu, Susan A. Everson, Marianne M. Hillemeir, Trivellore E. Raghunathan, Jukka R. Salonen and George A Kaplan. (2002). Life Course Socioeconomic Conditions and Adult Psychosocial Functioning. *International Journal of Epidemiology* 31:395-403.
Hayward Mark D and Bridget Gorman. (2004). The Long Arm of Childhood: The Influence of Early-Life Social Conditions on Men's Mortality. *Demography* 41(1):87-107.

October 4 Methods Matter

Freedman, Deborah, Arland Thornton, Donald Camburn, Duane Alwin, Linda Young-DeMarco. (1988). The Life History Calendar: A Technique for Collecting Retrospective Data. *Sociological Methodology* 18:37-68.

Tu, Yu-Kang, Robert West, George T. H. Ellison and Mark S. Gilthorpe. (2005). Why Evidence for the Fetal Origins of Adult Disease Might Be a Statistical Artifact: The "Reversal Paradox" for the Relation between Birth Weight and Blood Pressure in Later Life. *American Journal of Epidemiology* 161(1), 27-32.

October 6 Baby Fat, Chubs, and Obesity

Eriksson, Johan G., Tom J. Forsen, Clive Osmond, and David J. P. Barker. (2003). Pathways of Infant and Childhood Growth That Lead to Type 2 Diabetes. *Diabetes Care* 26 (11), 3006-3010.

Must, Aviva and R. S. Strauss. (1999). Risks and Consequences of Childhood and Adolescent Obesity. *International Journal of Obesity and Related Metabolic Disorders* 23:S2-S11.

Optional: Sedula, Mary K., Donna Ivery, Ralph J. Coates, David S. Freedman, David F. Williamson, and Tim Byers. (1993). Do Obese Children Become Obese Adults? A review of the literature. *Preventive Medicine* 22:167-177.

October 10-11 October Break—no class

October 13 Childhood Overweight and Obesity in Adulthood

Ferraro, Kenneth F., Roland J. Thorpe, Jr., and Jody A. Wilkinson. (2003). The Life Course of Severe Obesity: Does Childhood Overweight Matter? *Journal of Gerontology: Social Sciences* 58B:S110-S119.

Lawler Debbie A and George Davey Smith. (2005). Early Life Determinants of Adult Blood Pressure. *Current Opinion in Nephrology and Hypertension* 14 (3): 259-264.

Optional.: Roberts, RE, William J. Strawbridge, S. Deleger, and George A. Kaplan. (2002). Are the Fat More Jolly? *Annals of Behavioral Medicine* 24(3):169-80.

October 18 The Color of Early Origins

Astone, Nan Marie, Margaret Ensminger, and Hee Soon Juon. (2002). Early Adult Characteristics and Mortality Among Inner-City African American Women. *American Journal of Public Health* 92(4):640-645.

Preston Samuel H, Mark E. Hill, and Greg L. Drevenstedt. (1998). Childhood Conditions that Predict Survival to Advanced Ages Among African-Americans. *Social Science Medicine* 47(9):1231-1246.

October 20 SES and Health: The Long View

Beebe-Dimmer, Jennifer, John W. Lynch, Gavin Turrell, Stephanie Lustgarten, Trivellore Raghunathan, and George A. Kaplan. (2004). Childhood and Adult Socioeconomic Conditions and 31-Year Mortality Risk in Women. *American Journal of Epidemiology* 159(5):481-90.

Gilman, Stephen E. (2002). Childhood Socioeconomic Status, Life Course Pathways and Adult Mental Health. *International Journal of Epidemiology* 31(2):403-04.

Hallqvist Johan, John Lynch, Mel Bartley, Thierry Lang and David Blane. (2004). Can We Disentangle Life Course Processes of Accumulation, Critical Period and Social Mobility? An Analysis of Disadvantaged Socio-Economic Positions and Myocardial Infarction in the Stockholm Heart Epidemiology Program. *Social Science & Medicine* 58(8):1555-1562.

Optional: Swisher, R. R, Glenn H. Elder, Jr, Frederick O. Lorenz, and Rand D. Conger. (1998). The Long Arm of the Farm: How an Occupation Structures Exposure and Vulnerability to Stressors across Role Domains. *Journal of Health and Social Behavior* 39:72-89.

October 25 Childhood Health and Adult Health

Blackwell, Debra L, Mark D. Hayward, and Eileen M. Crimmins. (2001). Does Childhood Health Affect Chronic Morbidity in Later Life? *Social Science & Medicine* 52:1269-1284.

Holland, P, L. Berney, D. Blane, G. Davey Smith, D. J Gunnell, and S. M. Montgomery. (2000). Life Course Accumulation of Disadvantage: Childhood Health and Hazard Exposure During Adulthood. *Social Science & Medicine* 50(9):1285-1295.

- October 27 Normative and Non-normative Events and Well-Being: Does Infertility Harm Health and Well-being?
 Greil, Arthur L. (1997). Infertility and Psychological Distress: A Critical Review of the Literature. *Social Science & Medicine* 45(11):1679-1704
- Mindes, Erica J, Kathleen M. Ingram, Wendy Kliewer and Cathy A. James. (2003). Longitudinal Analyses of the Relationship Between Unsupportive Social Interactions and Psychological Adjustment Among Women with Fertility Problems. *Social Science & Medicine*, 56(10):2165-2180.
- Mirowsky, John. (2005). Age at First Birth, Health, and Mortality. *Journal of Health and Social Behavior* 46:32-50.
- November 1 Normative and Non-normative Events and Well-Being, Part II: Military Service and Well-Being
 Elder, Glen H., Jr., Michael J. Shanahan, and Elizabeth Colerick Clipp. (1994). When War Comes to Men's Lives: Life-Course Patterns in Family, Work, and Health. *Psychology and Aging* 9(1):5-16.
- November 3 Normative and Non-normative Events and Well-Being, Part III: Parental Death
 Irving, Sharon M., Melissa M. Farmer, and Kenneth F. Ferraro. 2005. Does Parental Death Accelerate Declines in Self-Rated Health? Unpublished manuscript.
- Johnson, Colleen L and Barbara M. Barer. (2002). Life Course Effects of Early Parental Loss Among Very Old African Americans. *Journal of Gerontology: Social Sciences* 57B:S108-S116.
- November 8 Reflections
 Halfon, Neal and Miles Hochstein. (2002). Life Course Health Development: An Integrated Framework for Developing Health, Policy, and Research. *The Milbank Quarterly* 80:443-479.
- November 10 First draft of papers due; describe review process
- November 15 Early Origins of Crime
 Sampson, Robert J. and John H. Laub. 2003. Life-Course Desisters? Trajectories of Crime among Delinquent Boys Followed to Age 70. *Criminology* 41:555-592.
 Optional: Laub, John H. and Robert J. Sampson. 2003. *Shared Beginnings, Divergent Lives: Delinquent Boys to Age 70*. Cambridge, MA: Harvard University Press.
- November 17 No class: Annual meeting of the Gerontological Society of America
- November 22 Peer reviews due
- November 24 No class – Thanksgiving break
- November 29 Student presentations
- December 1 Student presentations
- December 6 Student presentations
- December 8 TBA