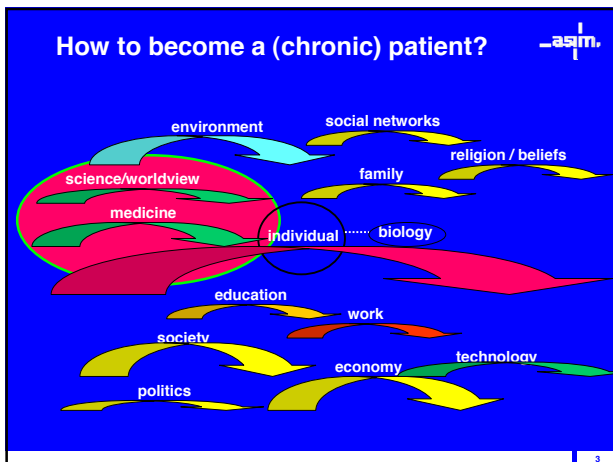
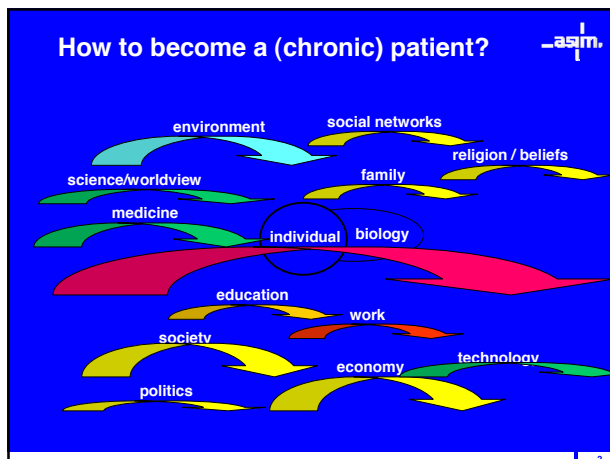


asim.
Academy of Science Informed Medicine

Patient werden – mehr als ein medizinisches Problem

asim – Fortbildung 14.02.2007

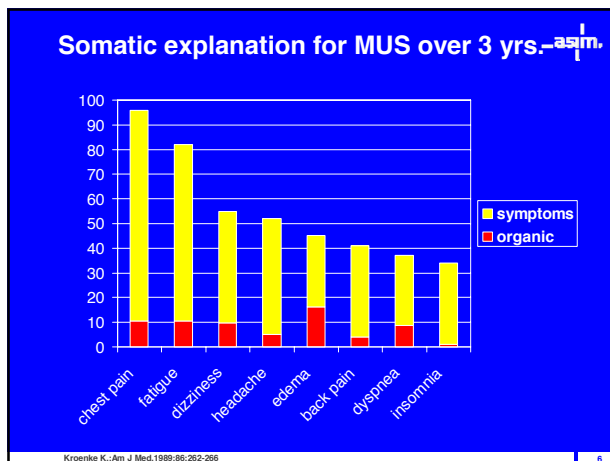
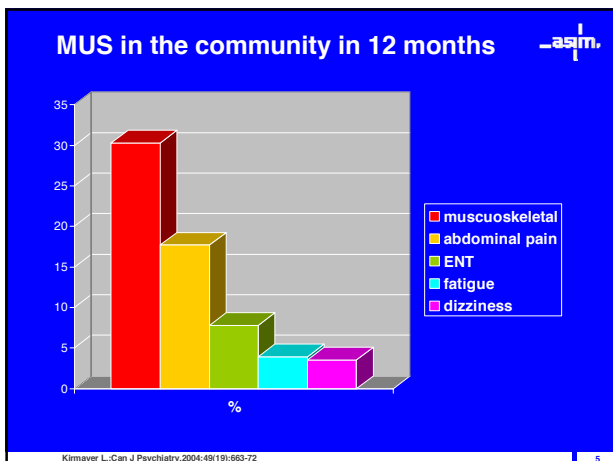
G.Risi

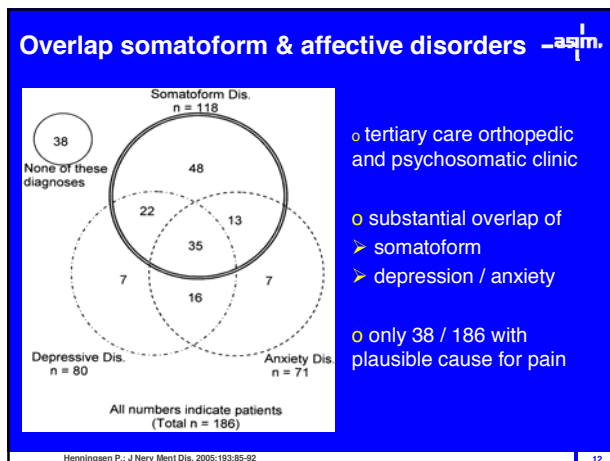
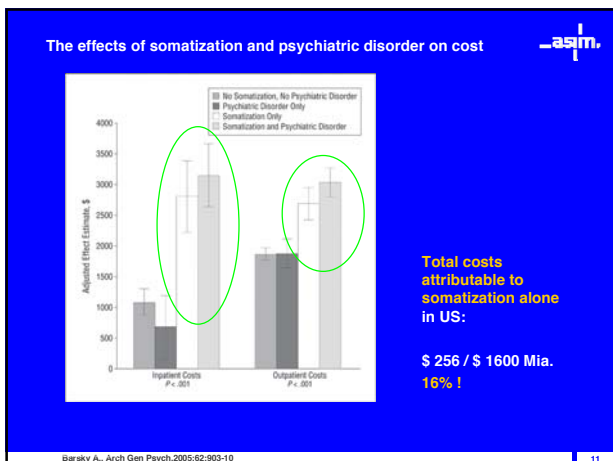
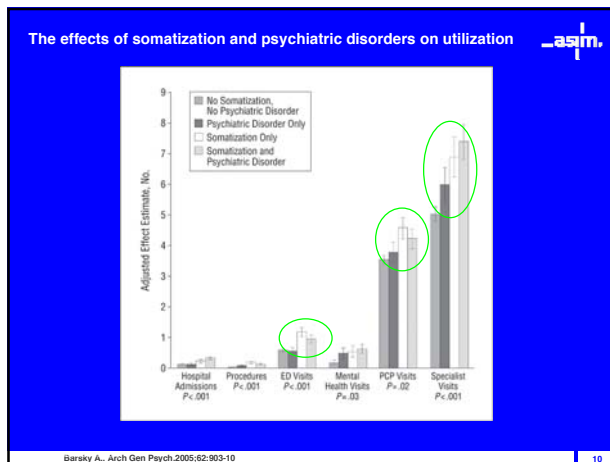
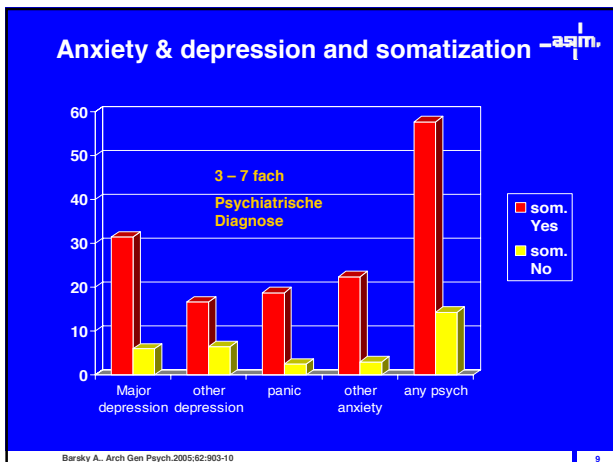
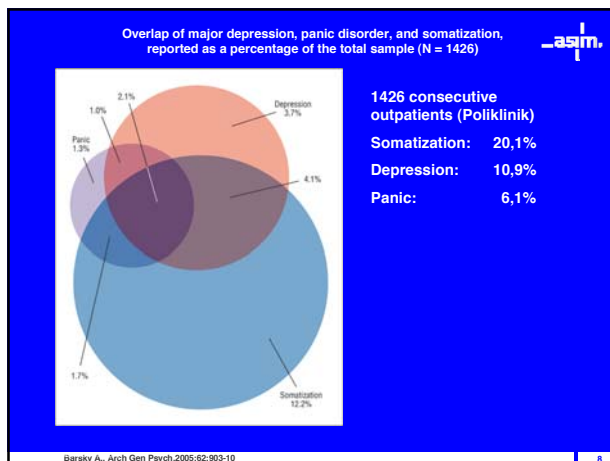
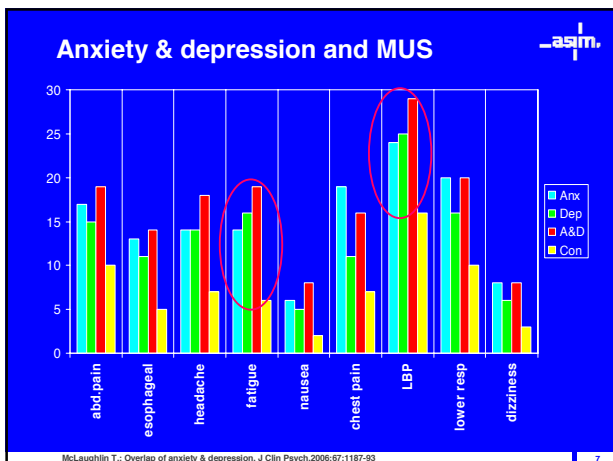


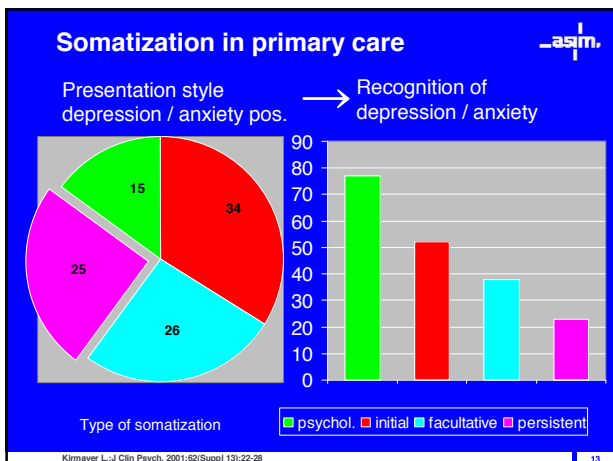
medically un-explained symptoms

or

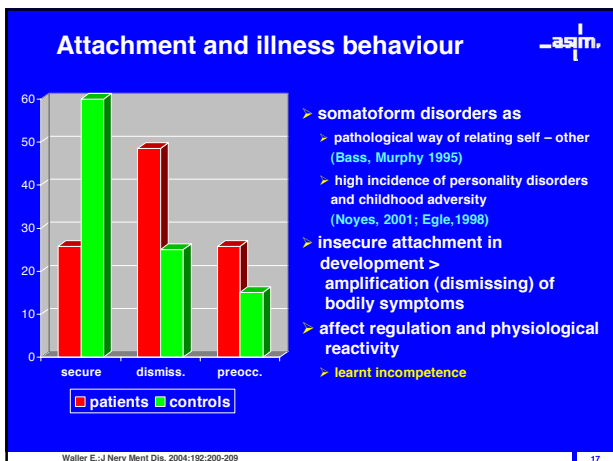
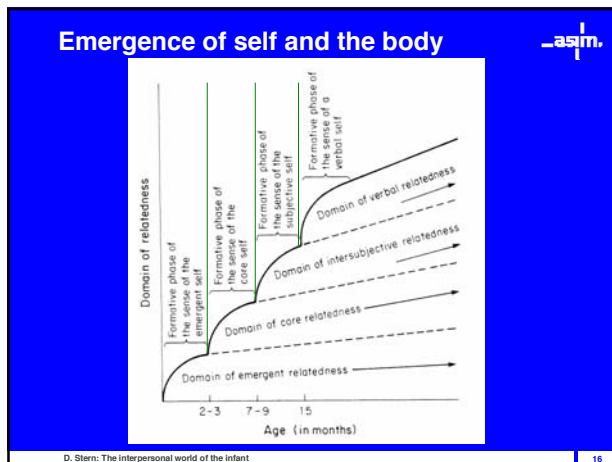
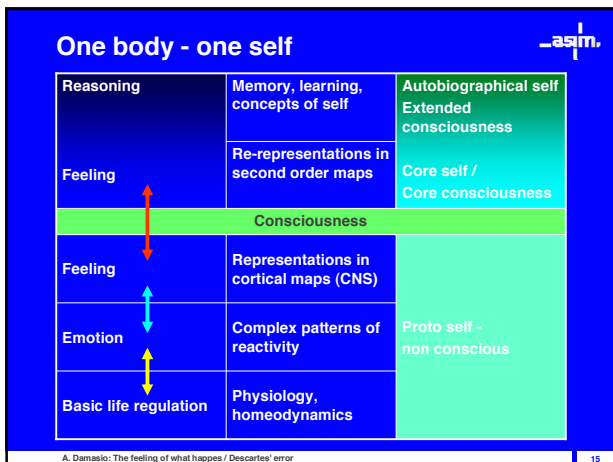
improper medical paradigm?







- ### Cultural factors in somatization
- Ubiquitous in all cultures
 - Index of disease or disorder
 - Specific psychopathology
 - Idiomatic expression of distress
 - Symbolic expression of intrapsychic conflict
 - Metaphorical narrative of social experience
 - Act of re-positioning in social sphere
 - Social commentary
 - Catastrophizing as means of communication (Severeijns_2001; Sullivan_2002)
- Kim Mayer L.-J. et al.: Psychosom Med 1996; 60(4):420-30 / de Gucht, V.: Psychosom. 2002; 43:1-9



- ### Learning to somatize?
- #### Children of mothers with irritable bowel syndrome
- more stomach aches
 - more non GI-symptoms
 - more doctors visits
 - more school absenteeism
- independent effect on child symptoms of both
- IBS status of the mother and
 - Solicitousness of the mother
- „conditional caretaking“ Violon_1985
 - somatisation as unique behaviour driven by anxious and maladaptive attachment style Stuart/Noyes_1999
- Levy R.: Am J Gastroenterol. 2004;99:2442-51

Un-explained symptoms?



- 15 – 30% of all PC consultations
- Strong association worldwide between
 - Depression / anxiety & medically unexplained symptoms
- „Atheoretical“ labelling of symptoms into „diseases“
- Intrinsic unclarity of (un)explainable
 - Historically shifting boundary / diagnostic power of distinction
 - Shift in concepts of disease over time
 - I.e. fibromyalgia, hysteria, somatization disorders, centralization of pain, neuronal plasticity
 - Social construction of disease, illness, sickness (differently for different diseases)
 - Socio-somatic theories to the patient
- Upholding a dichotomy mind (soul) – body

Aaron L.: Ann Intern Med 2001;134:868-881 / Burton R.: Psychol Bull. 2004;130(5):793-812 / Cecil Helman: Body myths.1991

19

Loosing the patients narrative



- Patients symptoms are the most complete narrative available to them at this moment
 - unorganized
 - often non-explicit even in long narrative interviews
 - „explanations“ offered by patients not taken up by doctors & v.v.
- Acceptable explanations
 - no blame , offer self management
 - satisfactory bridge between the subjective and the medical explanation
 - gap between subjective symptom knowledge and doctors interpretation
- Diagnosis as a refuge from the anxiety and uncertainty of illness experience
 - for patients and doctors alike
- John Strauss: „Explanation and categorization diminishes or even destroys the picture (narrative) and the impact it has for communicating experience“

Nettleton S.: Soc Theory Health. 2004;2:47-69 / Sharpe M.: Ann Intern Med 2001;134:926-30

20

Branding of normal life conditions



- **Medikalisierung als Geschäft (Kultur der Angst)**
 - Vince Parry: The art of branding a condition. Medical Marketing & Media. 2003
 - Ivan Illich: Nemesis der Medizin. 1977
 - Thomas McKeown: Limits to medicine. 1979
 - Klaus Dörner: Die Gesundheitsfalle. 2003
- **Obsessive Beschäftigung mit Gesundheit als Krankheitsfaktor**
 - Hans Georg Gadamer: Über die Verborgenheit der Gesundheit. 1993
- **Ansprung auf Unversehertheit als Forderung an die Medizin – an wen sonst?**
 - Entwertung aller Lebenszusammenhänge → Absolutheit des Gesundheitsanspruchs?

21

somatic fixation

or

what is functional ?



22

Low back pain



- life time prevalence: 50% - 80%
- ~ 97% non-specific, cause unclear
- ~ 5% - 10% chronic
- *** ➤ **Job demands:**
 - lifting, bending, rotations, vibrations
- *** ➤ **Chronification and disability:**
 - Individual and work related psychosocial factors not
 - Clinical findings or job demands
- *** ➤ **MRI und Rx**
 - No prediction on extent of LBP or disability
 - (s.a. Boos_2000; Borenstein_2001)

Frank: Spine.1996;21(24):2908-29 / Waddell G.: Occup Med.2001;51(2):124-35

23

Psychosocial factors for chronification in LBP



- job (dis-)satisfaction
- lack of control over workspeed / decision latitude
- subjective feeling of workload vs. ability
- feeling of ill health (SF-36) (Coste_2004)
- social / financial reward (Ciccone_1999)
- passive / catastrophizing coping strategies (Severeijns_2001; Sullivan_2002; Kersh_2001)
- part time work, low social integration and support at work place and home (Tubach_2002)
- subjectively adverse life circumstances (Klapow_1995)
- impairment of daily activities (Gureje_2001)

Hoogendoorn: Spine. 2000. 25(16): p. 2114-25

24

Psychosocial factors for chronification in LBP

- **Low social status** (Brekke_2002; Blyth_2001)
- **Education and socio-economic status (SES)**
 - OR disability 2 - 3 for unskilled (Hagen_2000)
 - stepwise association between both low SES & education with disability from backache
- **Migrants (even when naturalized), single parents, social welfare, unemployed**
 - 5x in chronic pain patients (Ektor-Andersen_1993; Soares_1999)

Ektor-Andersen J. Clin J Pain. 1993;9(3):183-9 / Hagen K. Spine. 2000;25(19):2480-7

MRI & LBP

- - - - - without depression
- _____ with depression
- Depression OR 2.3
- No significance of MRI findings for incidence of LBP
- Bulging negatively associated with LBP

○ Depression
○ Anxiety
○ work perception
○ Stress
○ Marital status

} predictive for work incapacity

Jarvik J. Spine. 2005;30(13):1541-48

Discographic and MRI determinants of LBP disability and remission

- **5 year follow-up, benign LBP**
 - 100 patients (1/3 persistent LBP, 2/3 chronic non-back pain)
 - Outcome measures: episodes of
 - Serious back pain (VAS > 6)
 - Sickleave < 1 week / > 1 week
 - Doctors visits
 - Remission of all backpain for > 6 months
- **Assessment at 6 month-intervals for 4-6 years**
- **Initial work-up**
 - Lumbar Rx / MRI, clinical (all)
 - Discography (subgroup of 25 without psychological problems)
 - Functional and psychometric assessments

Carragee E. Spine. 2005;5:24-35

Discographic and MRI determinants of LBP disability and remission

- **LBP episodes**
 - 134 episodes (VAS > 6)
 - 47/100 with no flare-up ever (VAS <6, no doctor, no sickleave)
- **Remissions**
 - 26 / 100 at least one remission of 6 months duration
 - 25/26 with disc degenerations, but **none with psychological problems**
 - Strong association of **reducing work load for those with heavy work** (p=0.0001)
- **Work disability**
 - 16 with sickleave, 4 longterm (26 - 104 weeks)
 - All longterm with **distressed psychological profile** (p=0.0006)
 - 15/16 with any disability with distressed psychological profile (p=0.0001)
 - 11/16 with **disc degeneration** (p=NS)
- **disability claims**
 - 12/100 (6 distressed, 3 at-risk, 3 normal psychological profiles)
 - **Fear avoidance strongly predictive** (p=0.005)

Carragee E. Spine. 2005;5:24-35

Discographic and MRI determinants of LBP disability and remission

- **MRI**
 - 78% with discal abnormalities
 - **No correlation** of any structural change with any outcome measure
 - **weakly:** moderate to severe Modic changes of endplate to pain
- **Discography with positive pain response (12/25)**
 - **No correlation with any outcome measure**
- **Chronic non-back pain of other body parts**
 - Strong association with episodes of LBP, medical care and disability
 - 2.1 episodes / vs. 0.7 in LBP group (p=0.0002)
 - 0.2 remissions / vs. 0.9 in LBP group per patient (p=0.0002)
- **Distressed profile**
 - Medical care use
 - **3.25 doctors visits / year vs. 0.003** (p=0.008)
 - Short term work disability
 - **0.42 episodes vs. 0.015** (p=0.0001)
 - Long term work disability (p=0.0004)
 - **No remissions in 5 years**

Carragee E. Spine. 2005;5:24-35

Screening for chronification in LBP in PC

Legend: dis-avoidant (red diamonds), avoidant (yellow squares), depressed (green triangles), low risk (cyan squares)

Bar chart: % > 15 days sick leave 1 yr.

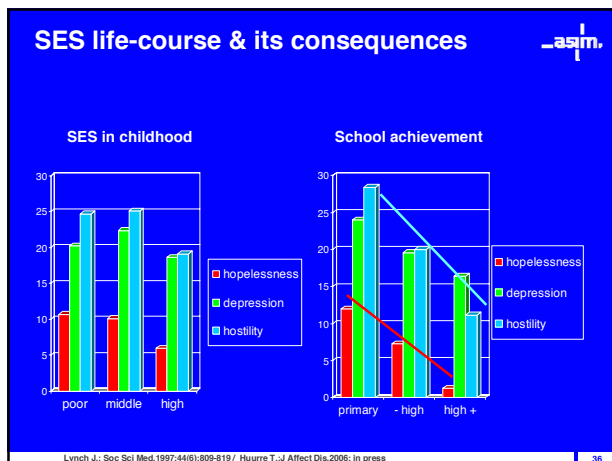
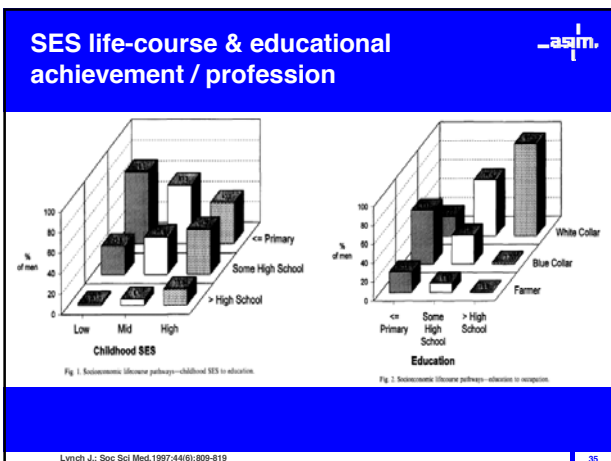
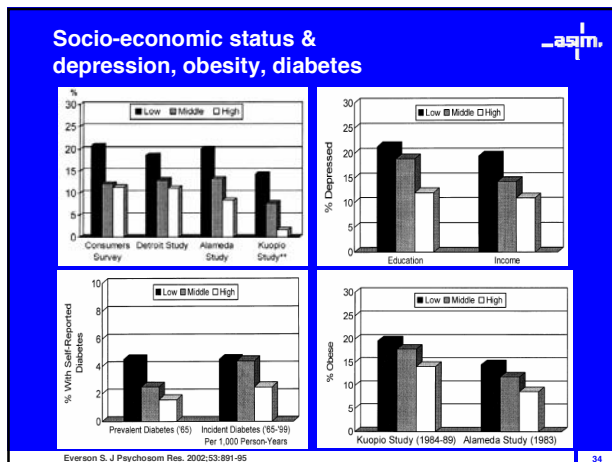
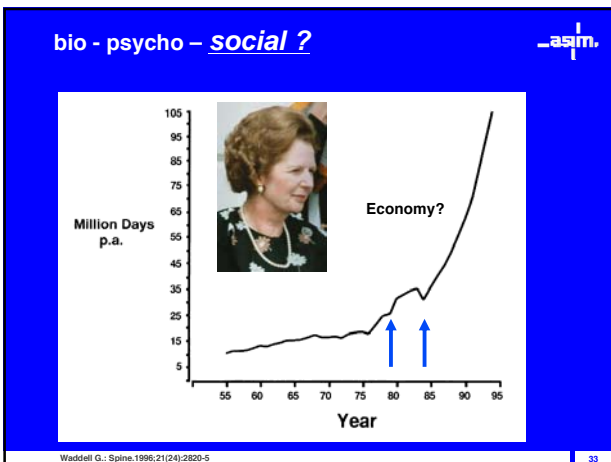
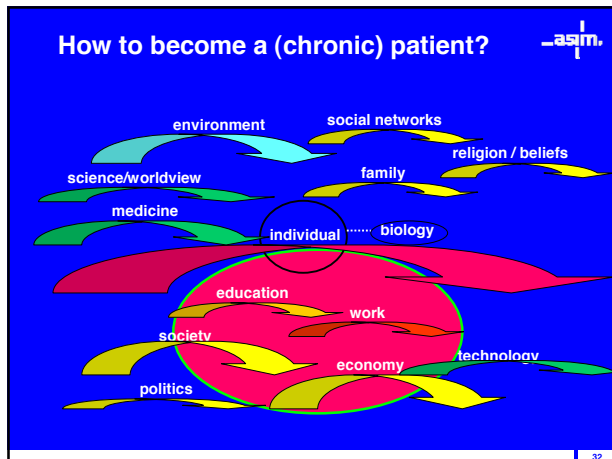
- dis-avoidant: 62%
- avoidant: 35%
- depressed: 0%
- low risk: 5%

Boersma K. & Linton S. Clin J Pain. 2005;21:38-43

Fear – avoidance and pain

- Lethem, 1983
- catastrophizing appraisal
 - 7 x more important as predictor to chronification of LBP than clinical / historical variables (Burton A.; Spine.1995;20:722-28)
- negative affectivity > hypervigilance to any stimulus > fear (of pain)
- anxiety sensitivity (fear of fear)
 - more basic fear as precursors (Reiss, 1985)
- anxiety > overprediction / -sensitivity of pain
- fear of pain or injury
 - more related to (mal-)performance than pain intensity
- disability and spreading to secondary problems
- narrowed attention on body symptoms
- change in movement organization and efficiency
 - Neuronal plasticity, learning to be ill
 - (Moshe Feldenkrais)

-asim.



Depression & unemployment

- economic inactivity in the neighbourhood predicts
 - Lower mental health
 - Strongest negative health effect on poor individuals
- depression predicts unemployment and loss of income
 - graded association between depression score and unemployment after 5 yrs.

Figure A: Proportion With Unemployment, %

Depression Score	Proportion With Unemployment, %
<4	~15
4-6	~18
7-10	~22
11-15	~25
>16	~30

Figure B: Proportion With Low Income, %

Depression Score	Proportion With Low Income, %
<4	~5
4-6	~6
7-10	~8
11-15	~9
>16	~15

Fone D. Social Science & Medicine 2006; in press. / Whoolley M. Arch Intern Med 2002;162:2614-20

Depression & work conditions

Figure: Depression & work conditions

Health Status	Optimal work conditions	1 adverse work condition	2 adverse work conditions	3 adverse work conditions	Unemployed
Depression	~8	~15	~20	~45	~30
Poor physical health	~10	~15	~20	~25	~30
Poor self-rated health	~5	~10	~15	~25	~25

P-values: P<0.001 for Depression, P<0.001 for Poor physical health, P<0.001 for Poor self-rated health.

Broom D. Soc Sci Med 2006;63:575-86

Core - periphery employment?

Figure: Core - periphery employment?

Category	employ 1	employ 2	employ 3	un-emp 1	un-emp 2	un-emp 3
poor health	~1.0	~1.0	~1.5	~1.0	~1.0	~3.0
chron. Disease	~1.0	~1.0	~1.5	~1.0	~1.0	~2.0
depression	~1.0	~1.0	~1.5	~1.0	~1.0	~4.5

Virtanen P. Int J Epidemiol 2003;32:1015-1021

Depression - therapy & SES

- STAR*D, n=1500, prospective multicenter study
- MDD strongly associated to health related QoL
 - successful treatment of depression only weakly ass. to increase in QoL
- QoL co-dependent on
 - education level
 - employment status
 - medical insurance
 - household income
 - race
 - marital status
- SES factors independent of severity of depression
- depression and anxiety in Europe and SES:
 - ~ 2 fold risk with socioeconomic disadvantage

Medhukar H. J Clin Psychiatry 2006;67:185-195 / Fryers T. Clin Pract Epidemiol Ment Health 2005;Sep:1-14

just an illness problem?

or

thank god there are some real diseases!

41

SES in childhood and mortality

- Social class I to V
- 21 year follow up from 1970 / 73
- OR in class IV & V vs. class I & II for mortality of
 - childhood SES essential
 - stroke 1.83 (1.13 – 2.94)
 - stomach cancer 2.06 (0.93 – 4.57)
 - Attenuation through adult SES
 - coronary heart disease 1.52 (1.24 – 1.87)
 - respiratory disease / COPD 2.01 (1.17 – 3.48)
 - Adult SES essential
 - lung cancer 1.65 (1.12 – 2.43)

Smith G. BMJ 1998;316:1631-35

Socioeconomic trajectory in the life-course

➤ Whitehall II: adult SES more important than childhood SES

- Influence of childhood SES on educational achievement
- employment position (income) inversely related to
 - Coronary heart disease
 - Depression
 - COPD

○ Low socioeconomic status and downward trajectory

- high risk of premature death (OR men 1.61, women 1.95)
- downward trajectory more important than childhood SES
- smoke related cancers and diseases and cardiovascular diseases (health behaviour)

➤ Parents SES (education & income)

- Graded association with cognitive function in children and educational achievement

Marmot M. J. Epidemiol Community Health.2001;55:301-7 / Melchior M. J. Epidemiol Community Health.2006;60:937-44

43

Depression & anxiety and disease

➤ Developing hypertension with depression / anxiety:

- FRAMINGHAM Study – (JAMA. 1993;24:270(20):2439-43)
- CARDIA Study – (Arch Intern Med. 2000;22:160(10):1495-500)
- Nat. Health and Nutrition Survey – (Arch Fam Med.1997;6(1):43-6)

➤ Progression of atherosclerosis and socioeconomic status

- Poor families, low education and income -> greater progression of carotid atherosclerosis (Am J Publ Health. 1998;88(3):389-394)

➤ Stroke mortality: excess risk + 50% with depression over 29 y

- After controlling for establishes risk factors (hypertension, CAD etc.) (Arch Intern Med. 1998;158:1133-1138)

➤ Symptom amplification and complication in

- COPD, asthma, diabetes, hepatitis C, wound healing, vaccination response ...

➤ Most powerful influence on QoL and functioning

- After adjustment for medical and socioeconomic conditions

Stein M. Med Care. 2005 Dec;43(12):1164-70.

44

Psychosocial stress and CHD

➤ 30% risk of acute MI attributable to psychosocial stress

- Depression, anxiety, hopelessness, hostility > risk for CHD
- INTERHEART study – Das S. Curr Atheroscler Rep.2006;8(2):111-8

➤ Post-MI depression

- when increasing: high risk for Re-Infarction (HR = 2.73)
 - Kaptein K. Psychosom Med.2006;68:662-68
- mortality with major depression post-MI: OR = 3.5
 - Frasere N. Circulation.1995;91:999-1005

➤ anxiety independent risk factors for CHD and atrial fibrillation in 10 yr. follow up

- Esker R. Psychosom Med.2005;67(5):692-96

45

Depression and heart failure

➤ Heart failure fasted growing CV disease in last 10 yrs. in US

➤ High prevalence of depression in patients with heart failure

- Dependent on NYHA class

➤ Possible relation of depression to incidence of new heart failure

- High rate of undetected depression

➤ Substantially worse prognosis of HF with depression

- Adjusted for disease severity (NYHA class, EF, age etc)
- Increased health care use and hospital admissions
- Increased mortality

➤ Shared biological mechanisms

- Sympathetic activation (stress)
- Pro-inflammatory cytokines
 - Exercise reduces both pro-inflammatory cytokines as depressiv symptoms

Rutledge Th. Depression and Heart Failure. J Am Coll Cardiol.2006;48(8):1927-37

46

Hopelessness and its consequences

➤ Fatal and non-fatal CHD

- Anda R. Epidemiol.1993;4:285-94

➤ Myocardial infarction and death from MI

- Everson S. Psychosom Med.1996;58:113-21
- Barefoot J. Psychosom Med.2000;62:790-95

➤ Atherosclerosis progression

- Everson S. Arterioscler Thromb Vasc Biol.1997;17:1490-95

➤ Hypertension

- Everson S. Hypertension.2000;35:561-67

➤ Cardiac arrhythmias

- mediated by autonomic NS imbalance due to depression and hopelessness

- Brunckhorst C. Ther Umsch.2003;60(11):673-81

➤ All cause mortality, OR 2.23 (1.33 – 3.76)

- After adjustment for depression and other risk factors
- Stern S. Psychosom Med.2001;63:344-51

47

Giving up ?

➤ Conservation – withdrawl

- Schmale 1958, Engel 1962

➤ Negative affective states

- hopelessness, helplessness, depression, vital exhaustion, grief

➤ Loss of ego autonomy, capacity to cope

➤ Loss of motivation to pursue ones goals

➤ Conviction that nothing can be changed

➤ Recourse on early life memories of similar reactions

➤ Complex bio-psycho-social reaction pattern

➤ Opposite of flight-fight pattern (Cannon)

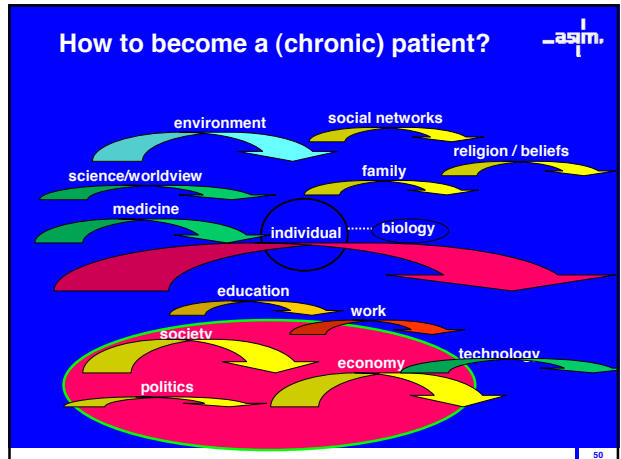
Buerki S., Adler H.R., Gen Hosp Psych.2005;27(3):180-88

48

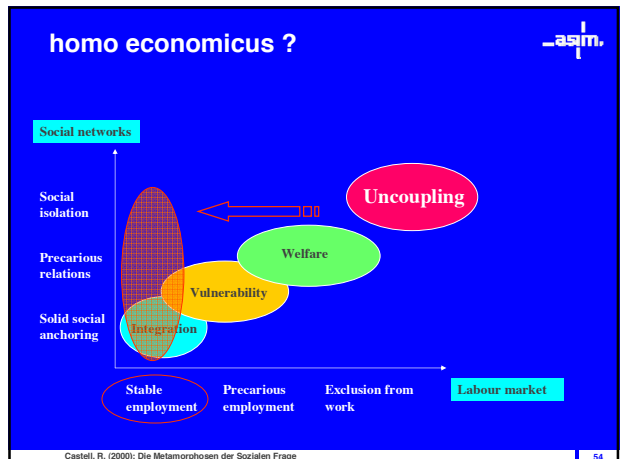
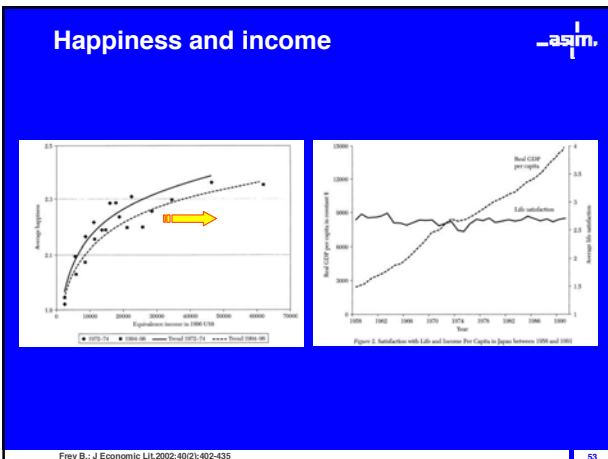
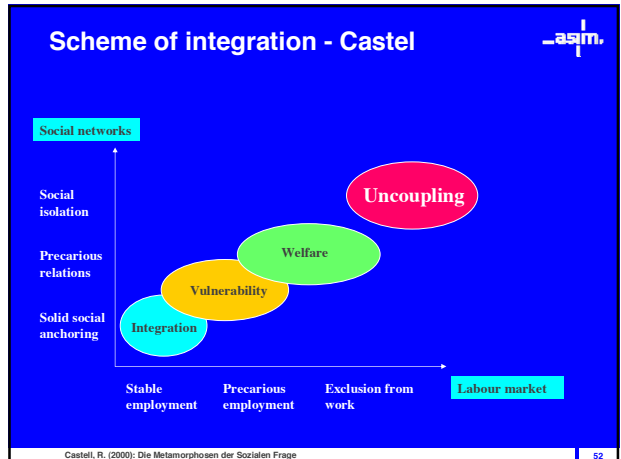
Paradigm shift

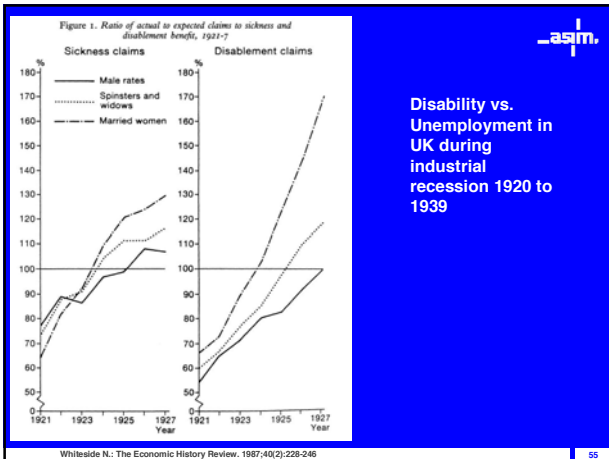
- Depression and anxiety as overall, non-specific, natural responses to
 - threat to existence (disease, feeling of non-coping, adverse life conditions & events, loss of life perspective, exclusion from society etc.)
 - warning sign rather than failure
- Fear and anxiety as one of the most powerful and innate emotions
 - part and parcel of being alive
 - religion, science, magic, rituals, society structures, law, rules throughout the ages
 - An now pills?
- Bio-psycho-social model?
 - medicalization of social problems or
 - developing social diagnostics and therapeutics
- Functional = changeable disturbance of regulatory systems
- Functional ≠ non-organic

Sharpe M., Arch Intern Med 2001;131:326-30 / Riemann F., Grundformen der Angst, 1975

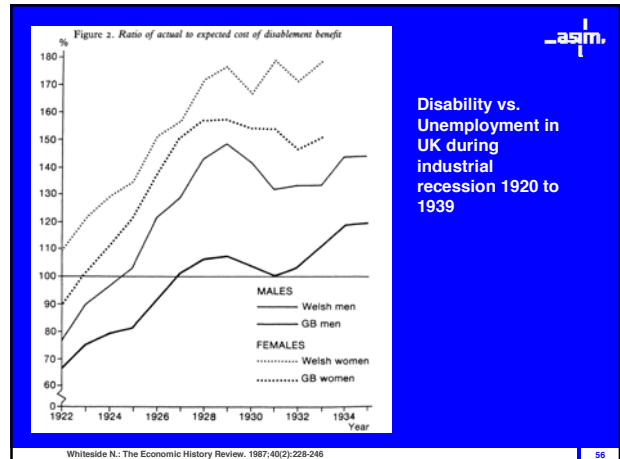


fear not
! ?





Disability vs. Unemployment in UK during industrial recession 1920 to 1939



Disability vs. Unemployment in UK during industrial recession 1920 to 1939

Sieben Soziale Sünden

- Wirtschaft ohne Moral
- Politik ohne Prinzipien
- Wohlstand ohne Arbeit
- Erziehung ohne Charakter
- Wissenschaft ohne Humanität
- Genuss ohne Gewissen
- Kult ohne Opfer

Mahatma Gandhi
Young India, 22.10.1925