

RIMS 31ST ANNUAL RIMS CONFERENCE

APRIL 25-30, 1993

ORLANDO, FL

Speaker's Name(s): Dorothy Dugger

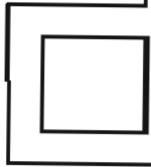
Session Number: WC Session Name: Worried Sick  
301

Date: Monday Time: 2-4 p.m.  
April 26

BEHAVIORAL MEDICINE:  
A BIO-PSYCHO-SOCIAL APPROACH  
TO ILLNESS AND INJURY

Dorothy Dugger MD  
WC #301

Worried Sick: The  
Psychosocial Frontier  
of Risk Control  
mon 4/26/93 2-4pm



## BACK INJURY CLAIM

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**predictive factors**      **probability of filing claim**

- 1) history of back pain
- 2) job dissatisfaction
- 3) distress in life

$2.5x > 3.3x$   
 $2x$

Of 3,000 workers with "Vertebral Column Disorders" in the Quebec Task Force 1981 Study:

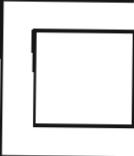
- 7.4% disabled at 6 months
- 70% of lost work days
- 73% of medical care costs
- 76% of compensation payments for back pain



PAIN

- Acute and chronic pain therapy affects 45% of Americans annually
- \$85 to \$90 billion cost to the economy
- 30% of the American public is estimated to have chronic pain\*
- 50 million Americans lose their ability to work because of pain
- loss of 700 million work days per year secondary to pain

\*United States Department of Health and Human Services (SSATUB) 64-031: The Report of the Commission on Evaluation of Pain. Washington: 1987.



## PSYCHOSOCIAL STRESS → INJURY

- Cooper - job dissatisfaction (poor relations at home & work ) lower mental health
- Green - pilots at fault had life event problem
- Rundmo - risk perception, job stress → injury, error
- Melamed - job dissatisfaction, stress
  - + psychological c/o → accidents
  - + physical c/o → sickness, absenteeism
- St. Paul Fire & Marine - ↑ stress, ↑ accident rate
  - ↑ medical benefit use, ↓ productivity
- Dr. A. Hirschfield - workers stressed prior to injury
  - adaptive

## Possible Psychophysiological Disorders

System	Examples
Endocrine	Hypopituitarism Hyperthyroidism, hypothyroidism Hypoglycemia Diabetes mellitus
Other	Posttraumatic headache Phantom limb pain Painful posttraumatic states

## HOLMES AND RAHE SOCIAL READJUSTMENT RATING SCALE

Life Events	Mean Magnitude (Percent)	Life Events	Mean magnitude (Percent)
Death of spouse	100	• Trouble with in-laws	29
- Divorce	73	Outstanding personal achievement	28
- Marital separation	65	Wife begin or stop work	26
- Jail term	63	Begin or end school	26
Death of close family member	63	Change in living conditions	25
Personal injury or illness	53	• Revision of personal habits	24
Marriage	50	Trouble with boss	23
- Fired at work	47	Change in working hours or conditions	20
Marital reconciliation	45	Change in residence	20
Retirement	45	Change in schools	20
Change in health of family member	44	Change in recreation	19
Pregnancy	40	Change in church activities	19
• Sex difficulties	39	Change in social activities	18
Gain of new family member	39	Mortgage or loan less than \$10,000	17
Business readjustment	39	• Change in sleeping habits	16
Change of financial state	38	Change in number of family get-togethers	15
Death of close friend	37	• Change in eating habits	15
Change to different line of work	36	Vacations	13
• Change in number of arguments with spouse	35	Christmas	12
Mortgage over \$10,000	31	- Minor violations of the law	11
- Foreclosure of mortgage or loan	30		
Change in responsibilities at work	29		
Son or daughter leaving home	29		

• = subjective event

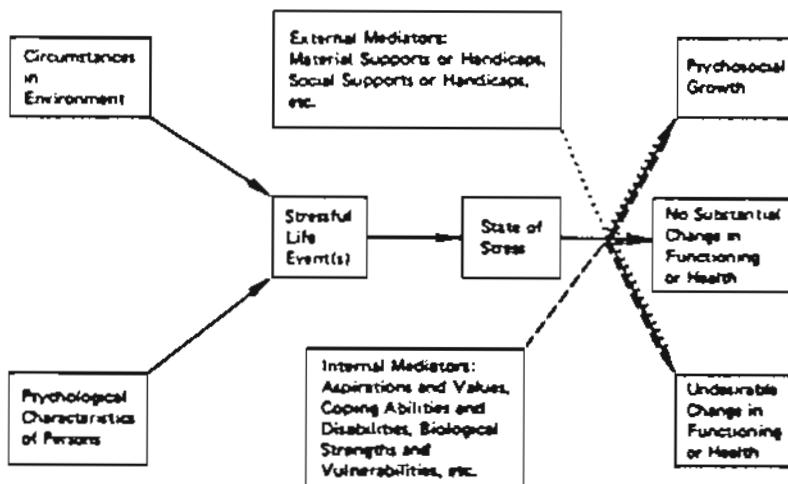
- = negative objective event that may be confounded with psychopathology

Adapted from Holmes and Rahe (1967). The mean magnitude represents the stressfulness of different events relative to the death of a spouse, based on answers obtained from test populations.

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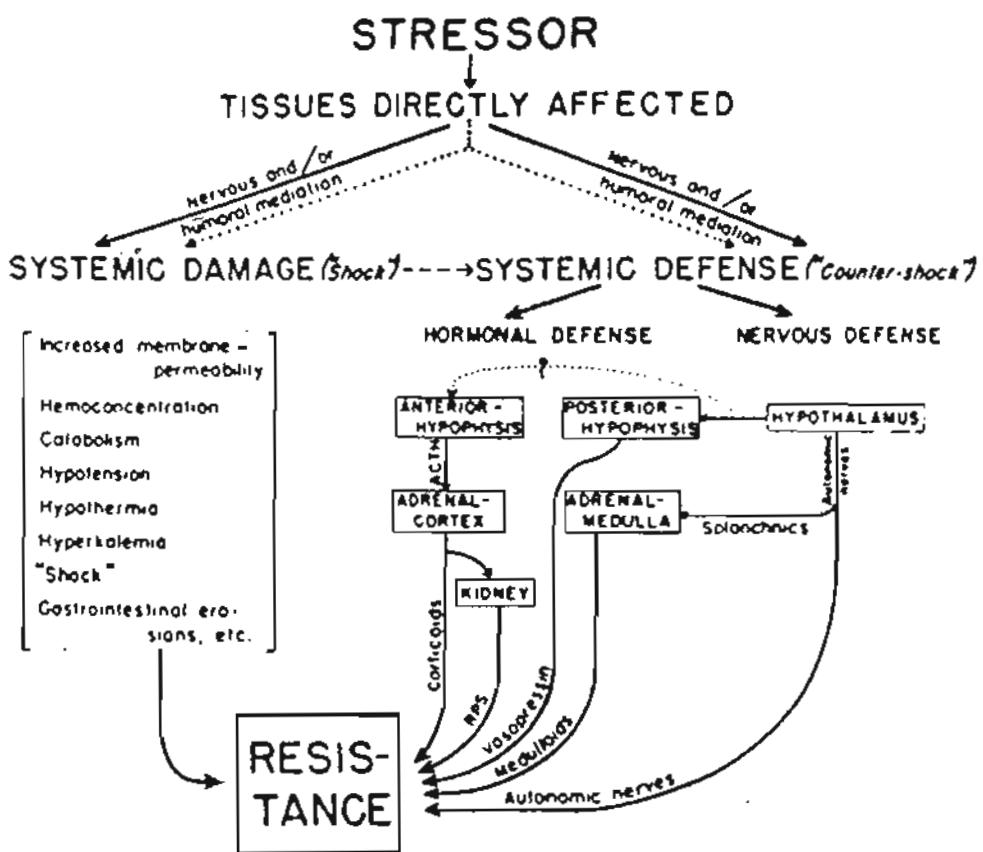
GENERAL PARADIGM OF THE STRESS PROCESS EXTENDED  
TO INCLUDE ANTECEDENTS OF STRESSFUL LIFE EVENTS

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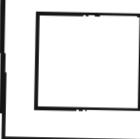


From Dohrenwend, B. S., et al., *J. Health Social Behav.*  
19:205-229, 1978 (Figure 1). Used with permission of  
the American Sociological Association, Washington, D.C.

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A model of the General Adaptation Syndrome: Pathways through which stress elicits systemic reactions. (From Selye, H., and Fortier, C., *Res. Publ. Ass. Nerv. Ment. Dis.*, 29:4, 1950.)



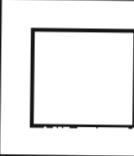
## HISTORY OF BEHAVIORAL MEDICINE

Cannon 1920 - fight/flight response, homeostasis

Alexander, blocked emotions → physical symptoms

Weiss & English 1949 - psychosomatic medicine

Wolff - adaptive, nonspecific nature of physical symptoms



# Workers' Comp Costs

## 1987

- \$45 billion
- 60% increase from '82 to '87
- predict \$100 billion by 2000

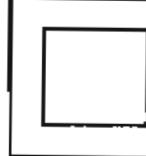
## 1990 (Tillinghast)

- \$60 billion in direct costs
- doubled in last 5 years
- averages 2% of payroll
- for \$1 in direct costs, \$2 in indirect costs

## SOMATIZATION

- physical expressions of emotions
- objective signs, subjective symptoms, and
- complicated syndromes commonly accepted as
- stemming from psychophysiological disturbances

**Sheehan & Hackett**  
**The Harvard Guide to Modern Psychiatry**



## CRITERIA FOR MAJOR DEPRESSION

1) loss of interest/pleasure or depressed mood

2) at least 4 of the following:

-weight loss/gain or ↑ or ↓ appetite

-insomnia/hypersomnia

-psychomotor agitation/retardation

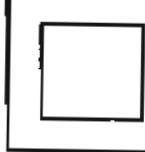
-fatigue

-feeling worthless/inappropriate guilt

-inability to concentrate

-suicidal ideation/attempts

3) not due to organic factor or bereavement



## PREVALENCE OF MAJOR DEPRESSION

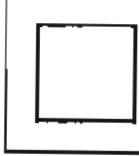
3 - 5% in general population

30% in chronic pain  
patients in pain clinic

Romano, Turner, Chronic Pain & Depression Psychol Bull  
1985;97

65% lifetime prevalence in patients with chronic  
back/pelvic/chest pain

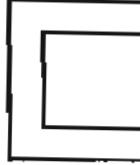
Katon, Sullivan, Dep. & Chronic Medical Illness, J. Clin.  
Psychiatry 1990, 51 (SUPPL 6)



## CHRONIC PAIN SYNDROME

- 1) pain persists beyond normal healing time for acute injury (i.e. 3 months)
- 2) functional disability far exceeds that expected on basis of objective findings
- 3) high/excessive health care utilization
- 4) indications of concomitant psychiatric disorder
- 5) excessive/prolonged use of narcotics, anxiolytics, alcohol

Sullivan, Turner, Romano  
"J. Family Practice" V43 No.2, 1991



## CHRONIC PAIN MANAGEMENT STRATEGY

### 1) workplace

- sensitive handling of incident
- personal health management/stress management
- EAP
  - organizational management
  - 2) coordination of A & H and P & C data
    - target high risk for education, assistance
  - 3) case management
    - proactive - onsite
      - early assessment
      - identify high risk cases
    - manage expectations, medical care, cost

## Benefits Design

every 20% ↑ in benefits → 10% ↑ costs  
(higher utilization)

## **PERSONAL HEALTH MANAGEMENT**

- Objective --Personal Ownership of Health Management (Self-Care and Lifestyle)
- Three Level Program:
  - Telephonic Patient Advocacy
  - Telephonic Patient Advocacy plus Literature Support
  - Above plus Health Risk Management
- Integrated with UR/CM Programs



Dorothy E. Dugger, M.D.

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