

STRESS



- CAUSES OF STRESS
- METHODS OF MEASURING STRESS
- MANAGING STRESS

CAUSES OF STRESS

- What causes you stress???
- Three areas to learn about:

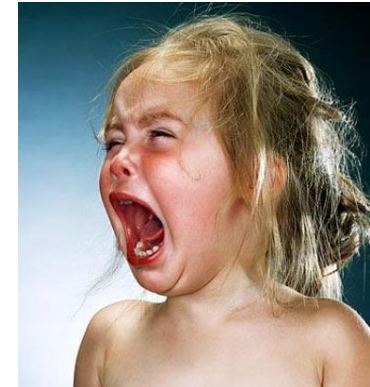


- **WORK**

- **HASSLES & LIFE EVENTS**



- **LACK OF CONTROL**



WORK: **JOHANSSON (1978); Swedish Sawmill Workers**

- A study to measure psychological & physiological stress response in employees
- **Method:** Quasi-experiment: workers defined as high-risk of stress & control group
- **Participants:** 24 workers at Swedish sawmill:
 - 14 high-risk (repetitive, complex, isolated work)
 - 10 (control); cleaners, maintenance work.



JOHANSSSEN (1978) continued

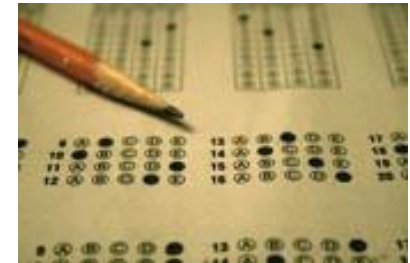
- Procedure:

- Daily urine sample (adrenaline levels)
- Body temperature taken
- Self-ratings of mood & alertness
- Caffeine / nicotine consumption
- Baseline measures taken at home



- Findings:

- High-risk group: adrenaline levels x2 from baseline, & more rushed & irritated
- Control group: adrenaline 1.5 x baseline & declined during shift



- Conclusion: repetitive, mechanized work can lead to higher stress levels



HASSLES & LIFE EVENTS

- **Stressful Life Events: SRRS (Holmes & Rahe, 1967)**
- **The Social Readjustment Rating Scale:** examines the stress caused by major life events.
- Developed by asking 400 adults to rate adjustment needed to deal with 43 different life events (eg; marriage, illness, moving house, etc)
- Personal score is measured by ticking off events that have occurred to you in last 12 or 24 months & add up values.
Higher the score - more chance of illness.

- Problems???



QuickTime™ and a decompressor are needed to see this picture.

HASSLES: KANNER et al (1981)



- Evidence that minor everyday hassles can combine to have a significant effect on health & illness
- **Aim:** to compare hassles as predictors of stress with life events
- **Method:** Repeated design using self-reports; all participants completed both Hassles & Life Events scale
- **Participants:** 100 Californians, white, above average income & education
- **Procedure:** Self-reports sent by post:
 - Hassles rating every month for 9 months
 - Life Events scale after 10 months
 - **Hopkins Symptom Checklist & Bradburn Morale Scale**
- **Findings:** Hassles correlated more positively with stress symptoms than life events (see also male/female data)
- **Conclusion:** Hassles better predictor of stress



LACK OF CONTROL

- **KEY STUDY: GEER & MAISEL (1973): The Effect of Control in Reducing Stress Reactions**
- **Method:** Laboratory experiment: shown photos of car-crash victims
- **Participants:** 60 psychology students from NYU
- **Procedure:** Random allocation to groups:
 - Group 1: given control over how long to view photos
 - Group 2: no control but knew what would happen
 - Group 3: no control & no predictability
 - Each p seated in sound-shielded room & wired to **galvanic skin response (GSR)** & heart rate monitor
 - Standardized instructions & photographs shown (preceded by 10 second tone)
 - GSR taken at standard points



GEER & MAISEL continued



- Findings:
 - Heart rate monitors inaccurate - discarded
 - Group 1 (control & predictability): less stress response to photos than groups 2 & 3
 - Group 2 (no control but predictability): more stress with tone
- Conclusion: Participants showed less GSR indicating less stress when they had control.
- Evaluating study:



METHODS OF MEASURING STRESS

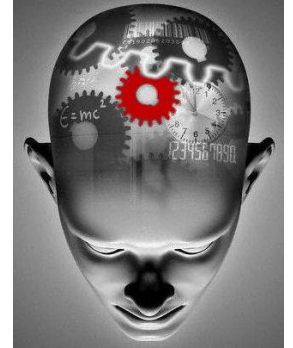
- How can we **measure** stress??
- **PHYSIOLOGICAL MEASURES:**
 - GSR / Heart rate (**Geer & Meisel, 1973**)
 - Biochemical measures (urine, blood)
- **SELF-REPORT MEASURES:**
 - SRRS (**Holmes & Rahe, 1967**)
 - Hassles (**Kanner et al, 1981**)
- **COMBINED APPROACH:**
 - Combining methods may overcome methodological problems with above. A more **holistic** measure.
 - **Johansson (1978):** urine analysis & self-report



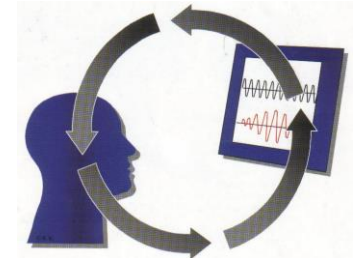
MANAGING STRESS

- What techniques can we use to manage stress?

- **COGNITIVE** (assumes faulty processing or thought patterns)



- **BEHAVIOURAL** (assumes learning through reinforcements or associations)



- **SOCIAL** (recognises the importance of social interaction & support)



MANAGING STRESS: COGNITIVE

- **KEY STUDY: MEICHENBAUM et al (1975): Stress Inoculation Therapy:**
- Stress caused by faulty processing of information. Negative thoughts may be due to past experience or current perceptions.
- **Meichenbaum:** three components of **SIT**:
 1. **Awareness of thoughts** in stressful situation (self-instructions or verbalisations):

“ I’m so rubbish at exams”
 2. **Coping strategies** taught to enable restructuring of thoughts. Relaxation techniques
“ I’ve revised everything & can do this” (deep-breathing)
 3. **Uses techniques** in real life situation:



MICHENBAUM (1975): Stress Inoculation Therapy

- Study to compare SIT with behavioural systematic desensitisation
- **Method:** field experiment using **decompressor** and **decompressor**
- **Participants:** 21 students (age 17-25); volunteers are needed to see this picture.
- **Procedure:**
 - Matched pair design & randomly allocated to groups
 - Tested using test-anxiety questionnaire
 - IQ tests - Anxiety Adjective Checklist
 - SIT Group: 8 therapy sessions (+ve statements / relaxation)
 - SD Group: 8 therapy sessions (Prog. Relaxation)
 - **Findings:** SIT group showed more reported improvement in anxiety levels
 - **Conclusion:** SIT is more effective at reducing anxiety than SD (due to cognitive component)

MANAGING STRESS: BEHAVIOURAL

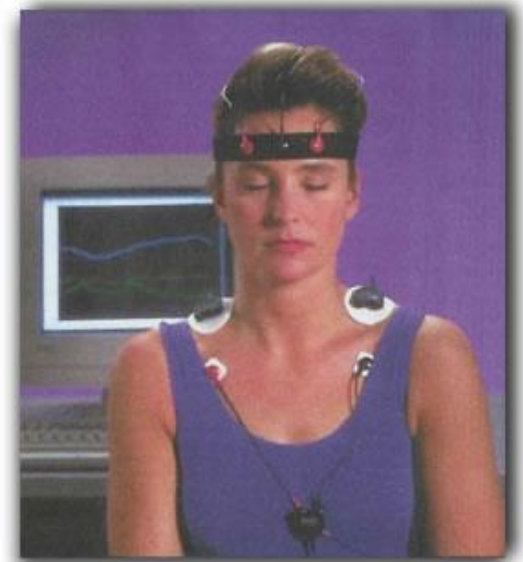
- **Biofeedback:** a method of giving feedback on biological functioning (increased heart rate, high blood pressure, skin conductance, muscle tension, etc) enabling control over them, & thus reducing stress.



- **Behaviourist:** visible/audible feedback on body & rewards for reducing stress reaction (+ve reinforcement)

BUDZYNSKI et al (1970): Biofeedback & Reduction of Tension Headaches

- **Aim:** To see if biofeedback is due to placebo effect or if it effectively reduces tension headaches.
- **Method:** Experiment (partly lab) & self-reports (8 weeks)
- **Participants:** 18 respondents to newspaper advert. Aged 22-44 (2M/16F), medical/psychiatric screening
- **Procedure:** Independent measures design. 3 Groups:
 - Group A: biofeedback & relaxation & EMG feedback
 - Group B: Relaxation & pseudo-feedback
 - Group C: Control group (waiting list)
 - 2 weeks: ps kept hourly records of headaches. MMPI self-report



BUDZYNSKI et al continued

- Findings:

Group A: muscle tension significantly lower than Group B. Reported headaches dropped significantly from baseline & less than Groups B & C.

Also, significant reduction in hypochondriasis, & drug use

- Conclusion:

Biofeedback - effective way to train patients to relax & reduce tension headaches.

An effective method for stress reduction

- Problems with study?



MANAGING STRESS: SOCIAL

- Social support relates to how the social situation can help reduce stress.
- KEY STUDY: **WAXLER-MORRISON et al (1993):**
Social Relationships & Cancer Survival
- **Method:** Quasi experiment. Data collected by questionnaire & interview
- **Participants:** 133 women under 55 with breast cancer.
- **Procedure:** Self-reports about existing social networks.
Medical records: details of diagnosis, survival & recurrence rates (5 years later)



WAXLER-MORRISON et al continued

- **Findings:** aspects of social network linked with survival:
 - marital status (married)
 - supportive friends
 - contact with friends
 - social network
 - employment



QuickTime™ and
decompress
are needed to see this

- **Conclusion:** Social networks & social support significantly related to survival. Assumes that stress is reduced.
- NB: **Prospective** aspect of study removes biases of **retrospective** studies