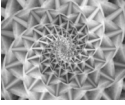

The Spirituality, Mind/Body, Healing Connection



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Learning Objectives

1. Articulate the steps of the Relaxation Response (RR).
2. Identify possible applications of the RR in your clinical practice.
3. Explore the theoretical bases for clinical application of the RR.

Problem

- 1,200,000 Americans have a new or recurrent MI each year
- Leading cause of death in US for men and women
- Survivors have 1.5-15 X higher chance for illness and death than the general population
- A MI causes stress and anxiety

Problem

- Increased stress and anxiety activates SNS
- Fight or flight response
- Incredible impact on cardiac patients
 - ↑ HR, BP, RR, and ↑ work of the heart

Am I going to die?

What's happening to me?

Is there a God?

Can I have sex again?

Will be able to go back to work?

Will I see my daughter's wedding?

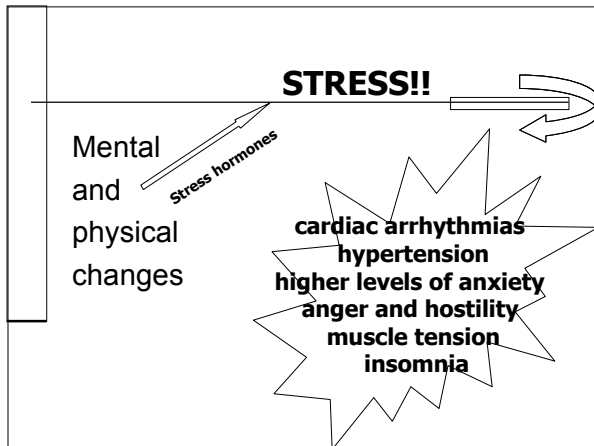
Who will take care of my family?

Why me?

■ Minorities

- Cultural influences
- Meaningful communication
- Misinformation
- Exclusion
- Dissonance






Problem

For 2-3 weeks post MI


- No contact with a health care professional or assistance in dealing with questions, fears, anxiety, etc. experienced after suffering a life threatening event



What can help?

Spirituality

- Communication that is familiar
- Support/comfort
- Connectedness



↓ Stress
and
Anxiety

Relaxation Response

- Herbert Benson, M.D. MBMI at Harvard Medical School
- Transcendental meditation
- *Repeated word, phrase or sound
- *Passive disregard of thoughts



Relaxation Response

- ↓ metabolism, HR, RR, and slower brain waves
- ↑ spirituality
- Simple to teach and use



Basic Science of RR

- RR
 - Average 10-17% drop in metabolism
 - Hypothalamic response
 - Generalized decrease in SNS activity
 - ↓ O₂, CO₂ production, HR, RR
 - *Opposite of fight or flight*

Research

Treat stress related conditions:

- Hypertension
- Cardiac arrhythmias
- Insomnia
- Chronic pain
- Anger
- Anxiety
- Hostility



Relaxation Response

- Word or phrase that has (spiritual) meaning such as a prayer
 - "The Lord is my shepherd," "Hail Mary full of grace," "shalom" or a word such as "love" or "peace"
- Sit quietly in a comfortable position
- Close your eyes



Relaxation Response

- Relax your muscles, progressing from your feet to your calves, thighs, abdomen, shoulders, head, and neck
- Breathe slowly and naturally, saying your focus word, sound, phrase, or prayer silently to yourself as you exhale

Relaxation Response

- Assume a passive attitude and disregard other thoughts
- 10 to 20 minutes
- Practice once a day



Purpose

Purpose of the study

- To evaluate the effect of a relaxation technique on anxiety and general well-being in people recovering from a recent MI in the immediate post hospital phase

- Offering RR gives back power
- Clears the mind
- Decreases anxiety
- Decreases physiologic stress response



Research Question

Does the RR decrease anxiety and increase perceived general well being in people during the first 3 weeks after MI?

- Evidence based intervention
- Gap in literature-spiritual interventions
- Familiar with RR
- In 2002, more than 50% of Americans use mind/body approaches for better health (National Institute of Health and Human Services, Center for Disease Control, and National Center for Health Statistics)

Evidence

- Benson: 80% of patients picked prayer as focus of elicitation of RR
- 25% reported feeling “more spiritual” as result of practicing RR whether they chose a religious or secular focus

Evidence

- Found correlation between ↑'d spirituality and ↓'d medical symptoms (10 weeks)
 - Belief in God alone not statistically significant for decreased symptoms

Kass, Friedman, R., Leserman, J., Zuttermeister, P., Benson, H. (1991)

Recent Physiological Findings

- After training, ↓ O₂ consumed (from rest) and ↑ NO in the RR group

Dusek, et. al. (2006)

- Nitric Oxide?

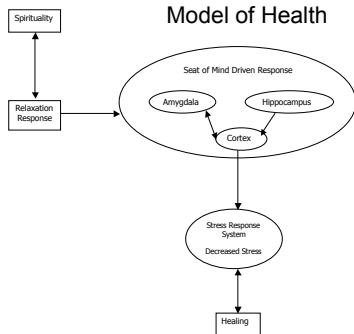
Nitric Oxide (NO)

- A short-lived nitrogenous free radical
- Mediates CV, immune and nervous system functions
- Endothelium-derived relaxing factor

Nitric Oxide (NO)

- Elicitation of the RR is associated with the synthesis and liberation of NO
- Sustained exposure to NO *inhibits the release of NE*

The Biopsychosocial-Spiritual Model of Health



Stefano, G., Fricchione, G., Slingsby, B., & Benson, H. (2001).

Setting

- 315 bed referral center serving the northeast Georgia
- In 2005
 - 260 open heart surgeries, 2500 cardiac catheterizations, and 900 angioplasties
- Mind/Body Institute
- Cardiac Rehabilitation

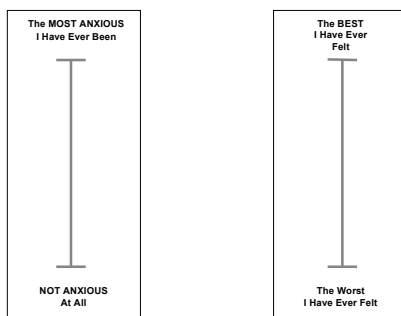
Population

- All MI patients admitted to the cardiology floors
- 27 Acute MI pts
 - MI confirmed by elevated Troponin, CPK, and CPK MB levels

Methodology

- Random assignment to one of two groups
 - Group 1 - instruction for RR exercises (n=14)
 - Group 2 - personalized nutrition education given to all patients at ARMC who have experienced a MI (n=13)

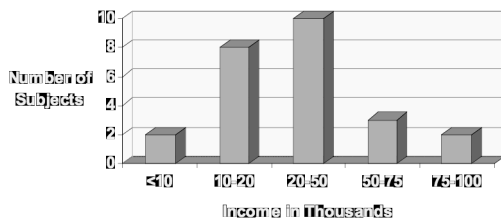
VAS



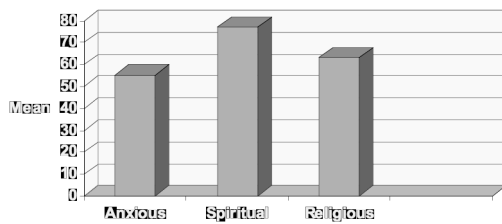
Methodology

- Patients were given a packets of questionnaires to take home
- Follow up by phone at 1 week and 3 weeks after receiving instruction, asked to fill out the forms and place them in the mail

Demographics



Characteristics



Characteristics

N=27

| Characteristic | Mean | Range |
|-------------------|------|-------------|
| Age | 62 | 37-82 years |
| Highest Education | 11.5 | 5-18 years |

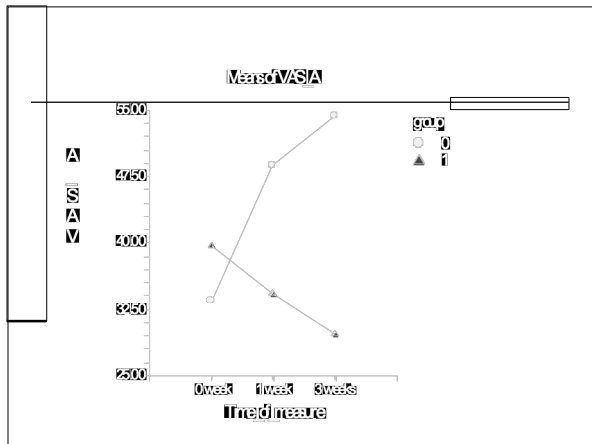
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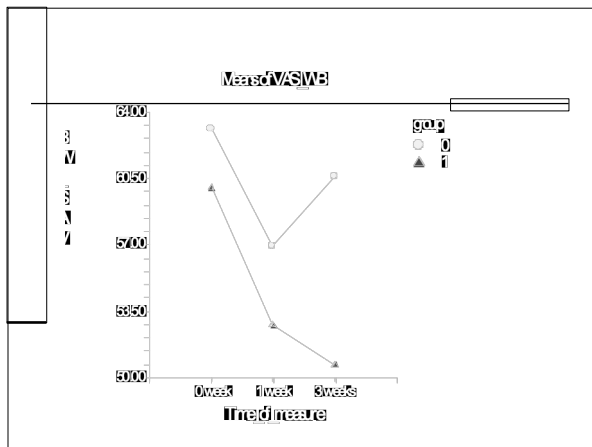
N=27

| Characteristic | Percent |
|----------------|-------------------------|
| Gender | 74% male 26% Female |
| Race | 88% Caucasian 12% AA |

VAS A Means

| Group | Week 0 | Week 1 | Week 3 | Main effect for group |
|-------|--------|--------|--------|-----------------------|
| N | 14 | 12 | 12 | |
| RR | 39.64 | 34.25 | 29.67 | 34.51 |
| N | 13 | 10 | 11 | |
| Diet | 33.54 | 48.8 | 54.36 | 45.57 |





- ### Observations
- RR group
 - 21% practiced 1x week
 - 21% practiced 3 x week
 - 54% practiced everyday, some after study ended
 - Arrhythmias
 - Substance abuse
 - Staff and patients asked for extra copies to give friends and family

Observations

- 78% of participants stated spiritual or religious, shows that although spirituality is a difficult concept to define, it is important in the lives of these participants
- It may be an area that could improve cardiac rehab during the in hospital phase

Observations

- 53% of those that practiced the RR said they felt more spiritual as a result of their practice



Conclusion

- Trend in decreased anxiety for RR group over time
- Trend supports the literature that RR reduces anxiety
- Strong physiologic component

Conclusion

- RR risk free intervention with no cost or side effects that can easily be taught at the bedside by the nurse
- Nurses, patients, and their families showed interest

Conclusion

- Patients found some values in practicing AEB continuation of practice and comments
- Spirituality introduces a healing component into post MI recovery that no invasive treatment can offer
