

EVMS EM JC CRITICAL REVIEW FORM:

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Citation:

León-Pérez JM, et al., [Effectiveness of a Humor-Based Training for Reducing Employees' Distress](#). Int J Environ Res Public Health. 2021 Oct 24;18(21)

Background

- Work is one of the main sources of stress that people experience
- Work related stress is associated with negative outcomes such as higher rates of heart disease, type 2 DM, and increased social security costs
- There are higher rates of workplace stress in health care, especially since COVID
- Multidimensional concept of humor for this study defined as – “ability to create or generate humor, the capacity to face life’s problems and difficulties with optimism and cheerfulness, the ability to appreciate and enjoy the humor generated by others, and the attitude or disposition to act and communicate through humor”
- 3 core elements of humor as a coping mechanism
 - 1. Cognitive approach that stress is elicited by one’s appraisal of a situation- in other words, the amount of stress you feel from something depends on your perception of how much it threatens something you consider valuable versus viewing it as an opportunity for growth or as a challenge. Humor can have a “stress buffer” effect to help people reappraise a situation as a positive challenge
 - Study of 179 firefighters showed humor helped buffer negative effects of traumatic stressors at work.
 - Study of 73 nursing home patients showed that use of humor was associated with improved mental health status
 - 2. Humor elicits laughter which elicits endorphins to relieve stress
 - 2 meta-analysis of 10 RCTs and 29 RCTS concluded that laughter inducing therapies and humor interventions reduced depression and anxiety
 - 3. Interpersonal approach that good relationships with coworkers and perception that you are supported is key to feeling of well-being.
 - Humor that builds social connection and ties among people is called affiliative humor and is proven to improve workplace relationships
 - Study of 57 Dutch workers showed they were less emotionally exhausted and more engaged when they expressed forms of affiliative humor
- Humor based intervention have proved to achieve good outcomes, but humor-based stress reduction interventions in organizational settings have very few studies available

Objectives:

- Examine effectiveness of a training program aimed at promoting adaptive humor at work and reducing psychological distress

Methods:

- Where: EMS organization in Spain.
- Study was voluntary, no selection criteria
- N of 58; men and women, age 27-57
- One group pre-post training research design
- Received in-person training over 6 weeks, 2x 90 min trainings per week + follow up 1 month later
- What were the trainings?
 - o Used structured learning strategy similar to social skills trainings
 - Given instruction on dimensions of humor to be learned, explored behavioral models, role playing and storytelling sessions, given feedback on their execution, then provided guidelines for generalization of what was learned in class to job context
 - Learning to using humor to be more tolerant of oneself, to cope, and to communicate.
- Measures
 - o Sense of humor measured by multidimensional sense of humor scale (MSHS)
 - Divided into 4 subscales- humor generation, coping through humor, appreciation of humor, and attitude toward humor
 - o Cheerfulness and seriousness measured using the State trait cheerfulness inventory
 - o Psychological distress measured by General Health Questionnaire (GHQ-28)
 - Broken into total score, somatic symptoms, anxiety/insomnia, social dysfunction, and severe depression

Results

- Wilcoxon signed rank tests and paired sample t tests showed higher scores in positive attitudes toward humor and cheerfulness and lower scores in seriousness, psychological distress (and all its subfactors except for somatic complaints) after training
 - o Lower scores in humor appreciation and higher score in social dysfunction symptoms after training.
- Medium effect size of humor-based training program for cheerfulness, seriousness, and psychological distress
- Large effect size for appreciation of humor and attitudes toward humor
- Statistical power of 0.99, high prob that training had an effect
- 10.4% reduction of potential cases of minor psych disorder
 - o Prior to training 62.1% of sample was at high risk of developing minor psych disorder per GHQ
 - o After training people at high risk were reduced to 51.7%

Applicability

- As a group we are at high risk for burnout, psychological distress and their associated poor outcomes to our physical health
- Humor can be developed through training such that we can learn to use humor at work correctly, leading in reduced stress and a better environment for learning and practicing medicine
- Can also help to better manage patient's emotional distress and make us better providers

Strengths

- Provides actual concrete guidelines for training module that could be used in healthcare setting throughout the country
- Multiple measures of psychological distress and humor analyzed

Weaknesses

- Low sample size
- Poor ability to control external factors that occur during study period
- Subjective nature of training and measures – could do things like salivary cortisol levels and/ or add external evals /peer-to-peer reports
- Time consuming, no one wants to do more training modules

Bottom line

- Humor is an important coping mechanism and further investigation into the benefit of implementing humor-based trainings could help fight burnout in the ED