



THE **STRESS**
RECOVERY
EFFECT

Transform Your Stress From Enemy to Ally



THE STRESS RECOVERY EFFECT WHITE PAPER

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Published by Florida Hospital

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RESEARCH ABSTRACTS

1. **STATEMENT OF THE PROBLEM:**

Stress continues to take a toll on workers. While a recent poll conducted by the American Psychological Association reveals that money is the top source of stress, even those working in financially secure positions are experiencing the deleterious effects. (*Stress in America™: Paying with Our Health* survey). Of the 3,068 adults surveyed, 43% reported having no means of emotional support and that over the past year, their overall stress has increased. Even doctors who are perceived to have financial security are not immune to the effects of workplace stress. In 2012, a report in the *Archives of Internal Medicine* (Shanafelt et al. 2012) revealed that amongst the more than 7000 doctors surveyed, almost half reported symptoms of burnout. Fatigue, detachment, and a low sense of accomplishment were the primary complaints. They were more prone to error, less empathetic and more likely to de-personalize patients. Some surveys have revealed that as many as three out of every four American workers experience stress in the workplace. In addition to the physical and mental health consequences, workplace stress results in greater absenteeism, lower productivity, increased staff turnover, and greater workers compensation costs. The estimated cost to American employers is an estimated \$200 billion per year. However, these costs can be drastically reduced through company-sponsored stress management programs. Dr. Kenneth Pelletier at Stanford University directed a study using either a mailed or telephone-based intervention. Compared with employees at a major US bank who did not participate, there was a significant improvement in measures of mental health who did.

2. **INTERVENTION:**

A quasi-experimental, single-arm, pre-post intervention design was used to evaluate the stress management program. The Stress Recovery Effect intervention is a behavior-based program that was developed utilizing multiple theories of stress and stress management.

The program was designed to help employees to understand:

- their primary style of coping with stress,
- options to consider to improve their coping capabilities, and
- support in learning and practicing new behaviors

The program was a 6-week program delivered in a group setting of approximately 25 individuals per group. The study participants were recruited with a goal to obtain an even distribution of employees according to job class: nursing, clinical/non-nursing, non-clinical/support. However, recruitment of nursing staff proved to be difficult.

3. **SUMMARY OF THE PRIMARY PROGRAM:**

In *The Stress Recovery Effect*, researchers Nick Hall, PhD, and Dick Tibbits, DMin, introduce companies to their evidence-based solution for stress management in the workplace. Grounded in original research conducted at Florida Hospital—the largest admitting hospital in America—this transformative program empowers employees to do what elite athletes and high performance CEO's do: Reframe stress from a negative to a positive, find their optimal stress zone, and use *The Stress Recovery Effect* to fuel future success.

Avoiding the “one-size-fits-all” approach so common with most stress management programs, Drs. Tibbits and Hall have produced an individualized/customized program—within a range—where each participant will identify their own Stress Coping Style and create a Personal Stress Profile. With these tools employees will learn new personalized strategies for optimizing (not eliminating) stress.

The *Stress Recovery Effect* is a six-week experiential class that incorporates a whole-person approach to managing stress. This behavior-based program utilizes multiple theories of stress and stress management to provide employees with the proper resources and tools to transform workplace stress into positive energy.

During this program, participants will:

- Learn and identify their distinctive stress coping style
- Create a personalized stress profile
- Learn how to make stress work for you, not against you
- Explore options to improve their coping capabilities
- Experience greater focus, creativity, and joy in life
- Acquire the tools to recover and refocus
- Find out why avoidance of stress is not a long-term strategy

Managing stress from a whole-person approach equips you with strategies to prevent stress, and can give you the energy you need to handle stress when it occurs.

4. **STUDY DESIGN:**

The objective of this study was to determine how best to provide the tools necessary so employees at Florida Hospital can improve their ability to manage stress in the workplace.

PRIMARY OBJECTIVE/AIM/GOAL/HYPOTHESIS

- To determine if The Stress Recovery Effect program is effective in reducing stress and improving emotional health.

SECONDARY OBJECTIVE/AIM/GOAL/HYPOTHESIS

- To determine the perceived helpfulness of the different interventions introduced to the participants in the program.
- To identify the sensitivity of the outcome measures used in this program
- To identify intra-individual factors that predict a change in stress and emotional health
- To determine if there is a decrease in healthcare utilization after participating in the program

- To determine of those who participate in the program have a positive change in their Employee Satisfaction

The program was a 6-week program delivered in a group setting of approximately 25 individuals per group. The study participants were recruited with a goal to obtain an even distribution of employees according to job class: nursing, clinical/non-nursing, non-clinical/support. However, recruitment of nursing staff proved to be difficult.

Several different measures were taken both Pre and Post Session including: The Harvard Step-Tests, GAD7, PHQ-9 and a 77 item questionnaire. These measures collectively assessed Heart rate recovery related to stress, measures of depression and anxiety, as well as domains of Emotional Health, Mental Health, and Spiritual Health. A subset of questions from the WebMD Health Assessment was used to measure sleep, emotional health, and stress for this study.

5. **SAMPLE SIZE AND COMPOSITION:**

Seventy-two participants were enrolled in the six session program; four participants withdrew prior to the final or post-testing period.

6. **MEASURES UTILIZED:**

Florida Hospital (FH) offers its employees an opportunity to have a health assessment and biometric screening through the hospital's engagement with WebMD Health Services. A Management Report is provided to the hospital summarizing the key metrics derived from participant responses to the Health Assessment[®] (HA) health risk assessment (HRA). This report provides benchmark data allowing a comparison of FH to the WebMD book of business (other clients). This allows FH to plan interventions that target problem areas and help mitigate the costs associated with medical claims, productivity, and absenteeism.

With regard to excess medical cost, Goetzel and associates evaluated the relationship between 10 modifiable risk factors and medical expenditures. They found that 22.4% of annual medical spending was related to modifiable risk factors. Emotional health and stress risk factors were estimated to account for approximately \$2,472 and \$467,

respectively, in per person annual excess costs. Effective, but low cost wellness programs, could potentially reduce excess medical spending through the reduction of emotional health and stress risk factors.

In 2014, over 12,000 FH employees took the HA. Aggregated data is in the table below. FH employees have higher risk factors for emotional health, stress, and sleep as compared to the employees in the WebMD book of business.

RISK FACTOR	FH	WEBMD
Emotional Health	25.0%	17.6%
Stress	43.1%	40.4%
Sleep	52.0%	33.7%

To address the modifiable risks in the areas of emotional health and stress, FH has developed a stress management program for its employees, which was the subject of an IRB-approved research study.

The Harvard step test change in rate of heart rate recovery was statistically different when comparing the pre and post program results ($t=2.05$, $df=63$, $p\text{-value}=0.045$).

Heart rate recovery rate was generated by using the heart rate at three and a half minutes divided by the baseline heart rate. Post-program average score of 1.11 is significantly better than pre-program average score of 1.16 for this calculation of heart rate recovery.

No statistical differences were concluded from the nine binary items asking respondents about feeling down or having little interest in doing things over the last 2 weeks or their feelings, sleep, appetite and anxiety issues over the past year.

Results from both standardized questionnaires (GAD7 and PHQ-9) revealed a statistically significant decrease in the total.

Both the GAD7 score assessing depression and the PHQ-9 assessing anxiety decreased from the pre-program median of 5 to the post-program median of 3. The GAD-7 total was the sum of 7 items, while the PHQ-9 questionnaire had 9 items. All items were on a scale of 0-3 with 3 indicating “Nearly every day.”

7. ANALYSIS METHOD:

Several different measures were taken both Pre and Post Session including: The Harvard Step-Tests, GAD7, PHQ-9 and a 77 item questionnaire. These measures collectively assessed Heart rate recovery related to stress, measures of depression and anxiety, as well as domains of Emotional Health, Mental Health, and Spiritual Health. A subset of questions from the WebMD Health Assessment was used to measure sleep, emotional health, and stress for this study. Table I provides additional information about these outcome measures.

INFORMATION COLLECTED	VARIABLE TESTED	RESULTS
Harvard Step Test	Rate of increase (heart rate after and before stepping)	Statistical improvement
WebMD sleep	Binary (yes, no) items	None of the 9 items had any statistical change comparing pre to post program
GAD7	Total score	Statistical improvement
Patient Health Questionnaire-9 (PHQ-9)	Total score	Statistical improvement

8. RESULTS:

Participants completing the final session were asked multiple-choice and open-ended questions pertaining to their opinion of the structure and content of the course. Of the 72 subjects enrolled at the start of the 6-session program, 66 or 92% completed the post session feedback information.

The following three items were asked using a multiple choice format.

Did you find this program helpful? (N=66)	
No	0 (0%)
Yes - slightly	2 (3%)
Yes- somewhat	12 (18%)
Yes – very helpful	36 (55%)
Yes – extremely helpful	16 (24%)

Did you adopt any of the program strategies to help manage stress in your life? (N=66)	
No	1 (2%)
Yes	65 (98%)

Did you feel better equipped to handle stress as a result of participating in this program? (N=66)	
No	1 (2%)
Yes	65 (98%)

The remaining items were presented in an open-response format. Each item is summarized by indicating the general type of response provided. The type of response was summarized using a thematic approach. A single response may have multiple themes.

QUESTION (N=66)	MAJOR RESPONSE GROUPS
What did you like best about the program sessions?	Strategies/Exercises 26 Content 24 Speakers 17
What did you like least about the program sessions?	Liked everything 20 Logistic issues 16 (class time, length, physical space)
What are your recommendations to improve the sessions?	More activities or interaction 14
What ways of presenting material did you like best?	Story-telling/personal 10
What ways of presenting material did you like least?	Reading (slides or text) 6 Lecture 5
What are your suggestions for future presenters to make this program the most meaningful for the participants?	(class time, length, physical space)
What is the most useful point/strategy/technique you are taking away from class?	Interaction 12 Handouts 6 Videos/visuals 6

9. STUDY CONCLUSIONS:

Participant feedback regarding the program was extremely positive. Of the 66 participants completing the post-program evaluation 79% found the program to be very helpful or extremely helpful. One hundred percent of participants stated they adopted program strategies and 98% indicated that they felt better equipped to handle stress as a result of participating in the program.

10. **SUMMARY OF THE PROGRAM IMPACT:**

Florida Hospital (FH) offers its employees an opportunity to have a health assessment and biometric screening through the hospital's engagement with WebMD Health Services. A Management Report is provided to the hospital summarizing the key metrics derived from participant responses to the Health Assessment® (HA) health risk assessment (HRA). This report provides benchmark data allowing a comparison of FH to the WebMD book of business (other clients).

This allows FH to plan interventions that target problem areas and help mitigate the costs associated with medical claims, productivity, and absenteeism.

With regard to excess medical cost, Goetzel and associates evaluated the relationship between 10 modifiable risk factors and medical expenditures. They found that 22.4% of annual medical spending was related to modifiable risk factors. Emotional health and stress risk factors were estimated to account for approximately \$2,472 and \$467, respectively, in per person annual excess costs. ***Effective, but low cost wellness programs, could potentially reduce excess medical spending through the reduction of emotional health and stress risk factors.***

To address the modifiable risks in the areas of emotional health and stress, Florida Hospital developed a stress management program entitled *The Stress Recovery Effect* for its employees, which was the subject of an IRB-approved research study.

OF 66 PARTICIPANTS COMPLETING A POST-PROGRAM EVALUATION OF OUR PROGRAM PILOT:

- 100 percent of participants stated they adopted program strategies
- 98 percent indicated that they felt better equipped to handle stress as a result of participating in the program.

II. DESCRIPTION OF THE ORGANIZATION:

Florida Hospital believes in and promotes whole-person health, and it is expressed through our CREATION Health philosophy. This philosophy is based on a mind, body, spirit approach to resist disease, advance health, and guide people toward a more fulfilling and satisfying life.

The Health Performance Strategies department at Florida Hospital was founded on the CREATION Health principles and the mission of our team is to help improve the health of employees, the health of companies, and the health of our community. *The Stress Recovery Effect* program was designed to help educate this population on the importance of health and how stress plays a role in workplace wellness. In addition, we strive to reduce the growing number of incidents of absenteeism, lower productivity, overall unhappiness, and poor performance and emotional health, due to employee-related stress in the workplace.

After completing a successful pilot of the program, the hospital rolled it out to their 22,000 employee population base. The Stress Recovery Effect is now available nationally and internationally through the Health Performance Strategy team at Florida Hospital.

WHY DID FLORIDA HOSPITAL CHOOSE TO TARGET STRESS?

Stress continues to take a toll on workers. While a recent poll conducted by the American Psychological Association reveals that money is the top source of stress, even those working in financially secure positions are experiencing the deleterious effects. (Stress in America™: Paying with Our Health survey). Of the 3,068 adults surveyed, 43% reported having no means of emotional support and that over the past year, their overall stress has increased.

In the world of healthcare, even doctors who are perceived to have financial security are not immune to the effects of workplace stress. In 2012, a report in the Archives of Internal Medicine (Shanafelt et al. 2012) revealed that amongst the more than 7,000 doctors surveyed, almost half reported symptoms of burnout. Fatigue, detachment, and a low sense of accomplishment were the primary complaints. They were more prone to error, less empathetic and more likely to de-personalize patients. But it's not only healthcare that is experiencing the ill effects of stress.





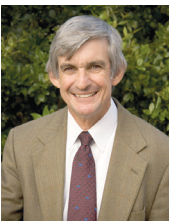
PROGRAM CREATORS AND RESEARCHERS



MICHELLE DOLSKE, PH.D.

Michelle Dolske received her Ph.D. in Medical/Clinical Psychology from the University of Alabama at Birmingham where she specialized in Neuropsychology. Dr. Dolske completed her Internship at the University of Chicago Medical Center and her Post-doctoral

Fellowship at the Cleveland Clinic in Cleveland, Ohio. Throughout her 20 year tenure at Florida Hospital, Dr. Dolske has served in various capacities including inpatient and outpatient rehabilitation services, multi-disciplinary clinics, including concussion, brain tumor and neurofibromatosis, as well as program development for Constraint-Induced Movement Program, Concussion Program, Pediatric Day Treatment, Darrell Armstrong Center for Childhood Development, and Health Intervention and Prevention Program. In addition to practicing psychology, Dr. Dolske is the Director of the Office of Research Administration (ORA) at Florida Hospital. The ORA provides supports and safeguards for Florida Hospital, investigators, research team members, research subjects, and data to ensure compliance and integrity of research at Florida Hospital.



NICK HALL, PH.D.

Dr. Nick Hall is a medical scientist and the recipient of an honorary MD, who since 1979 has conducted groundbreaking studies linking the mind and body. This research has been featured by the national and international media, including CBS' 60 Minutes, the

BBC's Nova series, and the Emmy Award-winning program *Healing and the Mind*. He has also been the recipient of two prestigious Research Scientist Development Awards from the National Institutes of Health, and is the author of the bestselling audio series, *I Know What To Do, So Why Don't I Do It*, published by Nightingale-Conant. In addition to his academic pursuits, Nick is no stranger to the more pragmatic aspects of how emotions impact health. After earning his way through college wrestling alligators and milking rattlesnakes, he worked as an intelligence-operative

for the U.S. Government. He also led a National Geographic-sponsored expedition to the West Indies, where he studied mass-stranding behavior in whales. At his Saddlebrook Resort headquarters, where since 1998 he has directed the Wellness Center, Dr. Hall creates team building and wellness programs for some of America's leading corporations and athletes.



DICK TIBBITS, DMIN

Dick Tibbits graduated with a doctoral degree in psychotherapy from Andover-Newton in Boston, Massachusetts. Dick is an ordained minister, a licensed professional mental health counselor, a clinical pastoral educator and has been a hospital administrator for the past thirty years. During his career, Dick has been a pastor, educator and hospital administrator at Kettering Medical Center, Florida Hospital and Loma Linda University Medical Center. In his spare time, Dick has also conducted original research on forgiveness and heart disease which he has presented at The National Institutes of Health, Harvard University, The Mayo Clinic, Duke University, Loma Linda University, and Stanford University. He is the author of “Forgive to Live: How Forgiveness Can Save Your Life” published by Thomas Nelson Publishing Company which is currently printed in four languages.

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