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Jim D'Alfonso, DNP, *University of San Francisco*



Available at: <https://works.bepress.com/jim-dalfonso/2/>



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# **Aligning Theory and Evidence-Based Practices to Enhance Human Flourishing in Nurse Executives**

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Cohort 6 – ELDNP

August 3, 2017

# Acknowledgements

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## **Family and Friends:**

My love and gratitude to my family, friends, and colleagues for their love and support in making this journey possible.

## **Advisor and Committee Members:**

I wish to acknowledge and express my deepest gratitude to my advisor and committee members:

- Dr. K. T. Waxman
- Dr. Robin Buccheri
- Dr. Tim Porter-O'Grady

# Problem Description

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**A large, not-for-profit, integrated health system with 21 hospitals located in northern California experienced a sudden and striking increase in nurse executive leader (NEL) turnover in 2015:**

- 17 of 28 NEL positions were affected by transitions or separations resulting in a 61% turnover rate
- Context: Several large-scale high stress disruptive events impacting NELs between 2013 and 2015
- New regional senior level leadership with shifts in strategy, style, and performance expectations
- Climate of great change, chaos, stress, and uncertainty

# Nurse Executive Leader Turnover

Percentage: Annual and by Position

Year	Regional CNE/VP (n=1)	Local CNE (n=14)	Local COO/ CNE (n=5)	Local ACNE (n=2)	Regional EDir/Dir (n=7)	Annual Turn- over	*Total Turnover % by Year
2011	0	4	1	1	0	6	21%
2012	0	3	1	0	2	6	21%
2013	0	8	1	0	0	9	32%
2014	0	5	1	0	0	6	**21%
2015	1	10	2	0	4	17	*** 61%
2016	0	5	1	1	1	8	29%
Turnover by Position	1	35	7	2	7		
% by Position	100%	250%	140%	100%	100%		

\*Total turnover by year based on an average of 28 FTEs/year over a 6-year period.

\*\*New regional senior vice president(s), opening of 3 new hospitals.

\*\*\*Post system-wide labor/strike activity, post implementation ACA-Covered CA, turnover regional CNE

## NEL Practice Gap

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- High turnover led to instability and leadership gaps
- Retention of NELs is critical to stabilize care environments and sustain clinical performance
- Risks identified - **stress** and downstream impact on operational performance, burnout, and continued separation
- Gaps in orientation and onboarding due to high turnover and number of new hires
- NEL education and training focused primarily on alignment and compliance with organizational initiatives
  - Opportunities identified to align training to brand – “Thrive”
- Established theory-guided stress management programs had not been conducted with the NEL group to date

# Evidence-Based Practice Change Proposal

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- The region had adopted Jean Watson's Theory of Human Caring and introduced HeartMath stress management programs for clinicians and clinical leaders with positive quantitative and qualitative results and broad acceptance
- The need for a focused caring science and HeartMath program for the NEL group was convincing, consistent with the organization's brand promise of total health (e.g., "Thrive"), and universally supported by the NEL team as their choice learning session

# Available Knowledge

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**Influenced by Caring Science HeartMath programs at Mayo Clinic in Scottsdale, Arizona (Pipe, 2009; Pipe et al., 2012), a qualitative metasynthesis of available literature was conducted**

**A PICOT (population, intervention, comparison, outcome, timeframe) question was developed to frame and guide a systematic search and critical appraisal of available evidence:**

- In a group of nurse executives (P), does implementation of a Caring Science HeartMath program (I), when compared to no intervention (C), enhance indicators of human flourishing (O) over a 6-month period (T)?**



# Systematic Literature Review

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## Key words

- Nurse executive, chief nursing officer, caring science, HeartMath, stress management interventions, resilience, and healthy work environment

## Evidence

- 39 articles were narrowed down to 8 relevant articles to help answer the PICOT question - 4 articles identified caring theory as a conceptual framework

## Evaluation of Evidence

- All evidence was critically evaluated using Johns Hopkins Non-Research Evidence Appraisal Tool.

## Summary of Evidence

- Evidence supports the feasibility of a planned theory-guided Caring Science HeartMath intervention for nurse executives.

# Evidence Synthesis Table

Evidence Synthesis Table

	Studies	Bishop (2013)	Fortney et al., (2013)	Hudgins (2016)	Ingwell- Spolan (2016)	Jamieson & Tuckey, (2016)	Pipe et al., (2012)	Pipe et al., (2009)	Prestia et al., (2015)
Theory, Intervention, and Concepts									
<b>Caring Theory</b>		X					X	X	X
<b>Mindfulness Intervention</b>		X	X			X	X	X	
<b>Engagement</b>		X	X	X	X		X	X	X
<b>Resilience</b>		X	X	X	X	X	X	X	X
<b>Retention</b>		X	X	X			X	X	X
<b>Healthy Work Environment</b>		X	X		X		X	X	

\* Johns Hopkins Hospital/The Johns Hopkins University (2012), Research appraisal tool. In S. L. Dearholt & D. Dang (Eds.). Johns Hopkins nursing evidence-based practice: Model and guidelines (2nd ed., pp. 237-240). Indianapolis, IN: Sigma Theta Tau International Nursing Society of Nursing.

Melnik, B. M., & Fineout-Overholt, E. (2015). *Evidence-based practice in nursing & healthcare: A guide to best practice* (3rd ed.). Philadelphia: Wolters Kluwer.

# Evidence to Support the PICOT – Emerging Themes

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- **Awareness and consciousness enhance resilience**
- **Adopt a positive worldview and regulate emotions**
- **Develop networks (personal and professional) of positive mentors – Relationships are key**
- **Empower others to decrease work demands and help develop others**
- **Redefine passions, connection, consider the value of serving others, and explore spiritual beliefs**
- **Manage personal energy drain and renewal ratio**
- **Practice self-care "in the moment"**
- **Model healthy stress management practices**

Hudgins (2016)

# Conceptual and Theoretical Framework

## Core Aspects of Caring Science Theory of Human Caring

1. Heart/Soul - Relational Caring as Ethical - Moral – Philosophical Values – Guided Foundation
2. Voice – Formal Language of Theory - **10 Caritas Processes**
3. Hearth/Home – Where Theory Lives - “In the Transpersonal Caring Moment – the Caritas Field”
4. Mind - Caring Moment informed by Consciousness, Energy, Intentionality & Heart Centered Human Presence
5. Hands/Embodied Practices - Caring/Healing Modalities

1. Practice Loving Kindness
2. Instill Faith and Hope
3. Nurture Individual Spiritual Beliefs and Practices
4. Develop Helping – Trusting Relationships
5. Promote & Accept Expressions of Positive & Negative Feelings
6. Use Creative Scientific Problem-Solving Methods for Decision Making
7. Perform Teaching and Learning that Address Individual Needs and Styles
8. Create a Healing Environment for the Physical and Spiritual Self which Respects Human Dignity
9. Assist with Physical, Emotional and Spiritual Human Needs
10. Allow Space for Miracles to Take Place

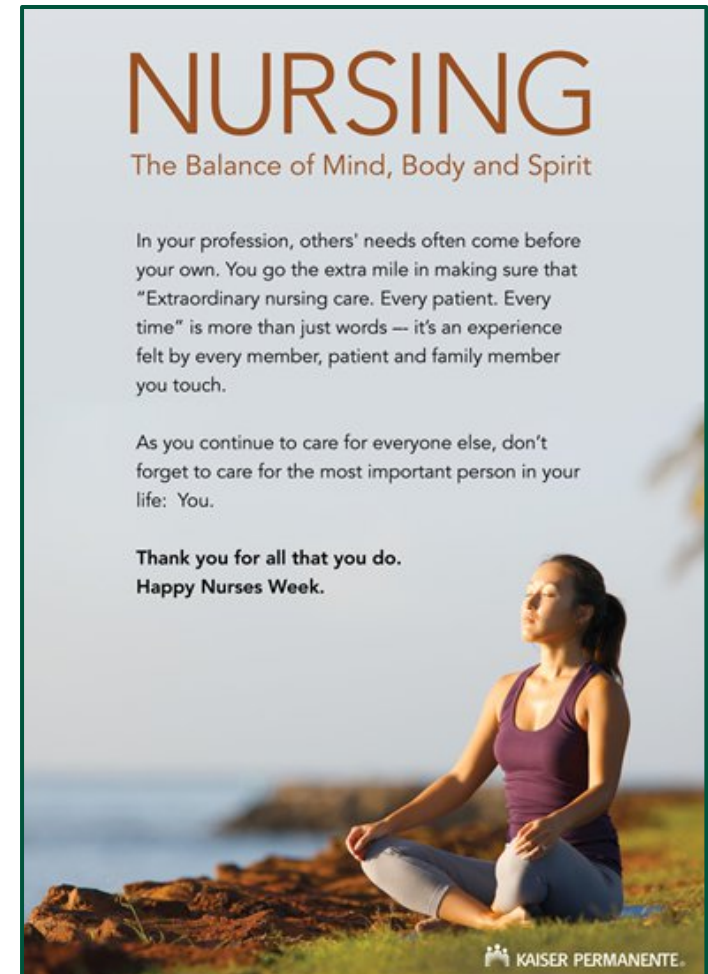
**Caritas**, the basis of love for the ultimate meaning and destiny of other humans.



# AIM Statement

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**Plan to implement a 4-Hour Caring Science – HeartMath program for a group of nurse executives in northern California. The intention of this program was to align self-care concepts of nursing theory defined by Dr. Jean Watson with evidence-based mindfulness breathing techniques and stress management strategies developed by HeartMath.**



# SWOT Analysis

## Strengths (+)

- Caring Science (CS) & self-care – organizational brand alignment “Thrive”
- Long term investment in CS & HeartMath(HM) – since 2007
- History of previous success with programs
- External expert faculty & data analysis
- Internal resources to support follow-up
- Nurse Exec Leadership (NEL) want to engage
- Budgeted Prof. Dev. – No Fee to Participate

## Weaknesses (-)

- Optionality – volunteer program which may hinder consistent adoption and adherence to CS-HM practices
- Competing operational priorities creating additional stress and challenge adoption
- Potential schedule conflicts for monthly follow-up
- Intervention is abbreviated – half day versus full day traditional program

## Opportunities (+)

- Enhance NEL value, knowledge, & understanding of existing CS-HM concepts
- Improve NEL perceptions - response to stress
- Build NEL rapport & improve morale
- Level-set NEL core competencies – Self Care
- Reduce turn-over by promoting enhanced self-care, balance, & resiliency skill sets
- Strengthen possibilities for adoption & spread of CS-HM programs to NEL direct reports

## Threats (-)

- Continued turn-over in NELs
- Risk of changes in senior leadership & reporting structures -disruption
- Labor unrest and external influences that disrupt training plan – Priorities
- Unintended coercion to participate related to reporting structures
- Potential concerns over privacy
- Loss of allocated funding





# Caring Science and Heart Science Concept

## NEL: Caring Science/Heart Science Program “Whole Person/Whole System Leadership”

### Target Audience:

Nurse Executive Leadership  
(NEL) Group

### Program Focus:

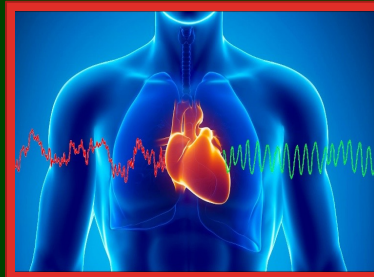
Education and personalized coaching, focused on resilience, optimal wellbeing, engagement, performance, & sustainability

### Problems Being Solved:

- ↑ Role related stress
- ↓ Work/life balance
- ↓ Operational efficiency
- ↓ Quality/Performance
- ↑ Labor/union disruption
- ↑ Separation/Turn-over
- ↑ Replacement costs

### Design and Features:

- 1:1 and Peer Group Coaching
- Confidential Personalized Plan
- Ongoing Feedback - Support



- Integrate “Whole Person” best practices, caring science - heart science methodologies
- Integrate “bio-feedback” device
- Measure outcomes “Human Flourishing” + Organizational Indicators (i.e., intent to leave)

### Program Benefits:

- Whole person engagement
- Whole team performance
- Enhanced joy & retention
- Improved work relationships
- Increased satisfaction
- Transform & sustain healing environments
- Whole system impact “Thrive”

### Future Impact:

- Standardize for new NEL orientation/onboarding
- Stabilize & sustain NEL Group
- Value **life**/work balance
- Spread to at risk teams
- Expand to other regions and patients







# 4-Hour Caring Science - HeartMath Program

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## Objectives:

1. Align caring science ethic, philosophy, and theory to self-care (CP1), authentic caring relationships (CP4), and creating healing environments (CP8).
2. Increase personal resilience and energy levels.
3. Leverage the ability to think clearly under pressure.
4. Practice HeartMath techniques for heart-focused breathing and quick coherence
5. Increase the ability to maintain situation awareness - mindfulness
6. Diminish physical symptoms of personal and professional stress such as confusion, fatigue, and sleep disturbance.
7. Improve reaction times and coordination.

# Heart Focused Breathing and Quick Coherence



## Quick Coherence® Technique

### A Heart Centering Methodology for Caring Science

Transform stress into the energy needed to care more authentically and with greater resilience.

#### Step 1 - Heart Focused Breathing

Focus your attention in the area of the heart. Imagine your breath is flowing in and out of your heart or chest area, breathing a little slower and deeper than usual.

*Suggestion: Inhale 5 seconds, exhale 5 seconds (or whatever rhythm is comfortable).*

#### Step 2 - Activate a positive or renewing feeling

Make a sincere attempt to experience a regenerative feeling such as appreciation, compassion or care for someone or something in your life.

*Suggestion: Try to re-experience the feeling you have for someone you love, a pet, a special place, an accomplishment, etc. or focus on a feeling of calm or ease.*

#### Communication Application

Coherence enables us to hear more clearly and intuitively understand how to respond appropriately and with care to any situation.

[www.heartmath.com](http://www.heartmath.com)

HeartMath is a registered trademark of the Institute of HeartMath. Quick Coherence is a registered trademark of Doc Childre.

# Bio-Feedback Technology



# Program Budget

Nurse Executive Leader: Caring Science – Heart Science Program Budget					
Number of Participants	Estimated Cost Per Participant	Units	Proposed Budget	Actual Program Expenses	Difference
30	600	30	18,000	17,350	650

Program Budget – Line Item					
Program Expenses:	Budget	Units	Proposed Budget	Actual Expense	Difference
Salary Costs	1,200	1	1,200	1,100	100
Faculty Honoraria	2,500	2	5,000	4,800	200
Travel	400	1	400	350	50
Shipping	200	1	200	250	(50)
Hotel Meeting Room	2,000	1	2,000	2,000	0
Lodging	300	6	1,800	1,650	150
Catering	1,500	1	1,500	1,500	0
Teaching Materials	30	30	900	900	0
Program Binders	45	30	1,350	1,200	150
InnerBalance® Devices	95	30	2,850	2,850	0
Survey Administration	500	1	500	500	0
Misc. Expenses	300	1	300	250	50
<b>Total:</b>			<b>18,000</b>	<b>17,350</b>	<b>650</b>

# Personal and Organizational Quality Assessment-Revised 4 (POQA-R4) Scale

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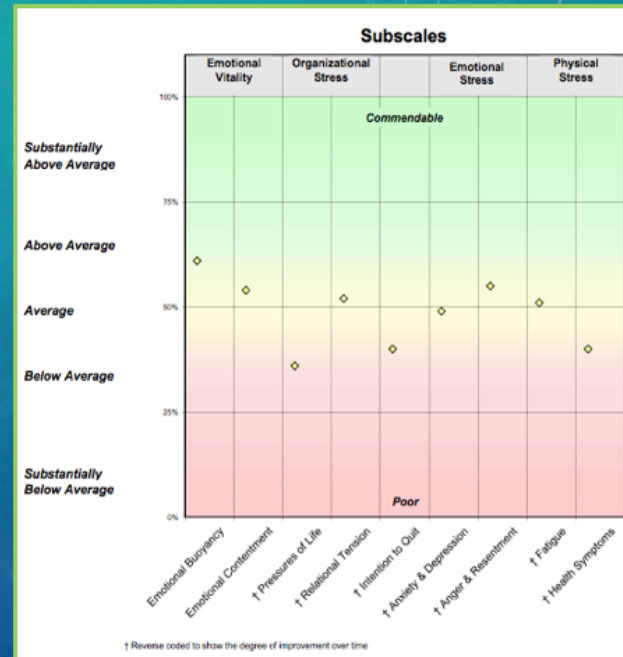
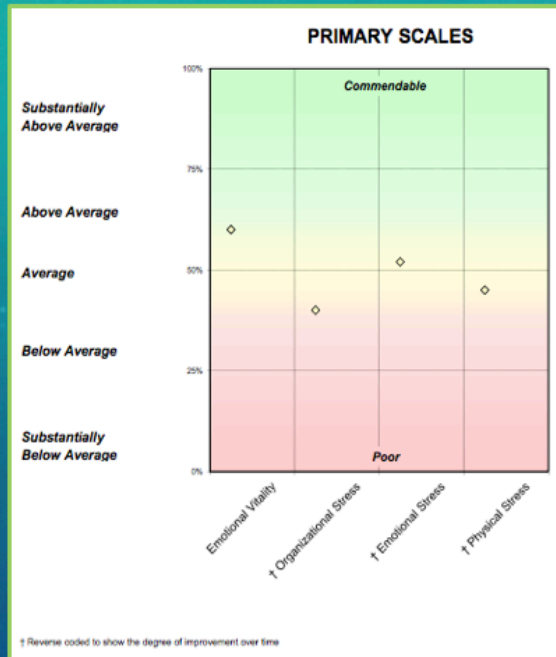
- A tested, valid, and reliable instrument
- Organized in Four primary scales and 10 subscales
- Developed by the Institute for HeartMath (IHM)
- Collection of baseline data and again at six months post-implementation
- 52-question paper survey utilizes two 7-point Likert scales,
  - ranging from *not at all* to *always* for items 1 thru 40 and
  - from *strongly disagree* to *strongly agree* for items 41 to 52
- The POQA has been used in multiple health care organizations and has evolved over the past few decades to help evaluate the impact of HeartMath training on nurses in a variety of settings

Larkey & Hector, 2014

# Pre-Intervention Survey

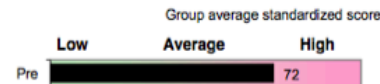
## NURSE EXECUTIVE LEADER GROUP

### POQA-R4 Baseline Data



#### Stress

How stressed you have been in the past month?



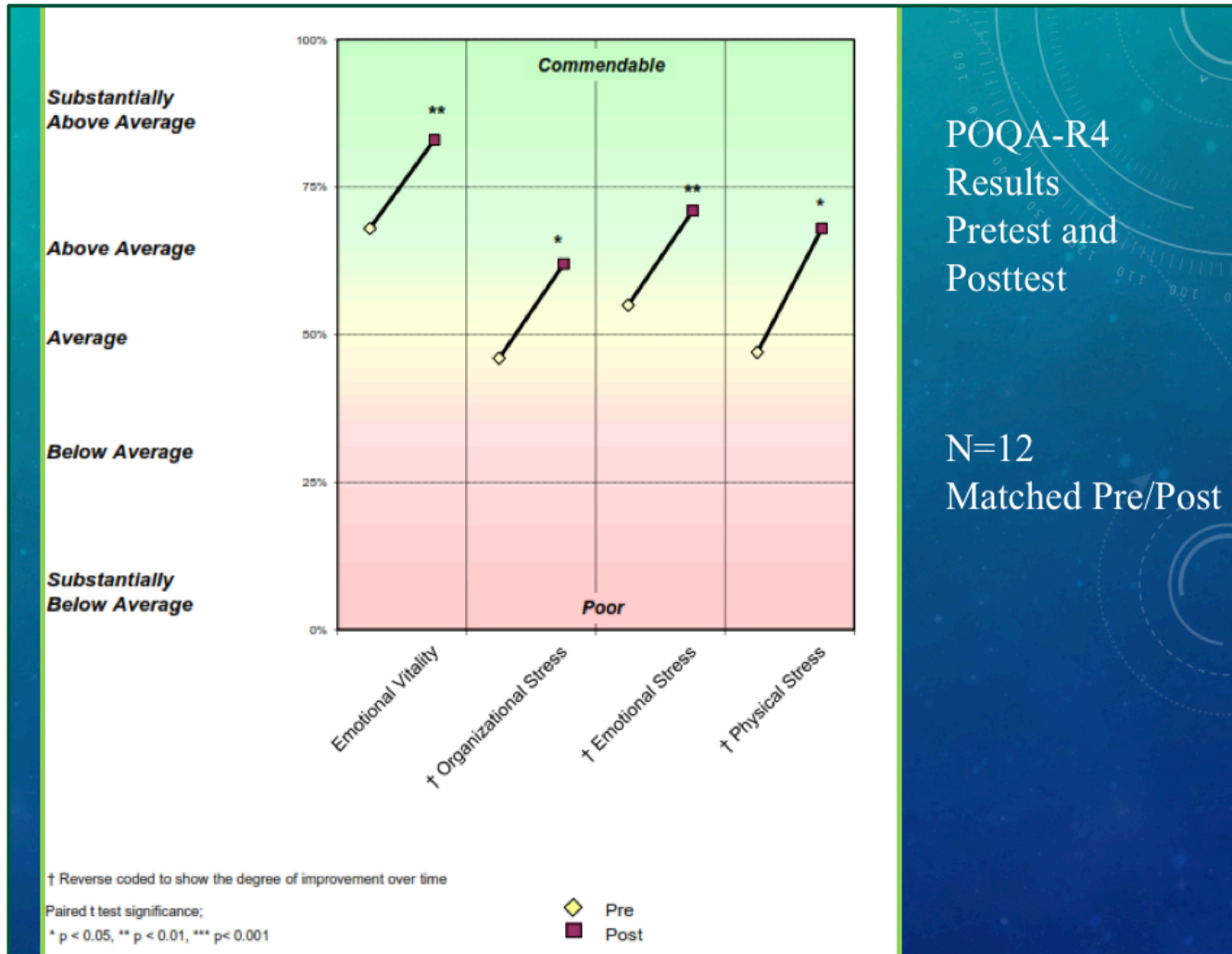
N=18  
Pretest



# t-Test Raw Scores

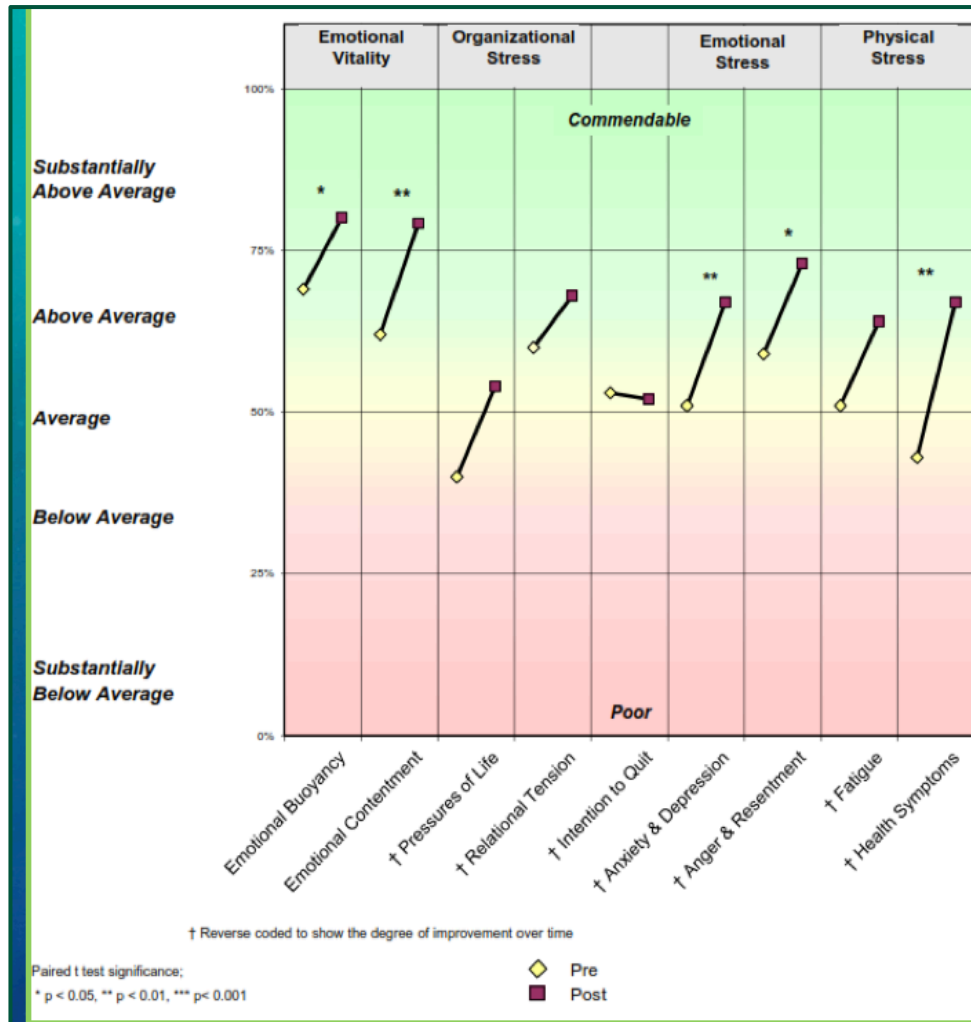
	Pre	Post	% Change	Significance
<b>Organizational Stress</b>	4.54	3.93	-13%	0.05
<i>Pressures of Life</i>	4.95	4.28	-14%	ns
<i>Relational Tension</i>	3.81	3.44	-10%	ns
<i>Stress</i>	10.91	8.17	-25%	ns
<b>Emotional Vitality</b>	5.16	5.71	11%	0.01
<i>Emotional Buoyancy</i>	5.46	5.85	7%	0.05
<i>Emotional Contentment</i>	4.75	5.53	16%	0.01
<b>Emotional Stress</b>	2.53	2.04	-19%	0.01
<i>Anxiety &amp; Depression</i>	2.79	2.19	-22%	0.01
<i>Anger &amp; Resentment</i>	2.30	1.91	-17%	0.05
<b>Physical Stress</b>	3.39	2.66	-22%	0.05
<i>Fatigue</i>	3.83	3.24	-15%	ns
<i>Health Symptoms</i>	3.07	2.27	-26%	0.01
<b>Paired t-test</b>		<b>N=12 Matched Pre/Post</b>		

# Pre-and Post-Primary Scales





# Pre-and Post-Subscales

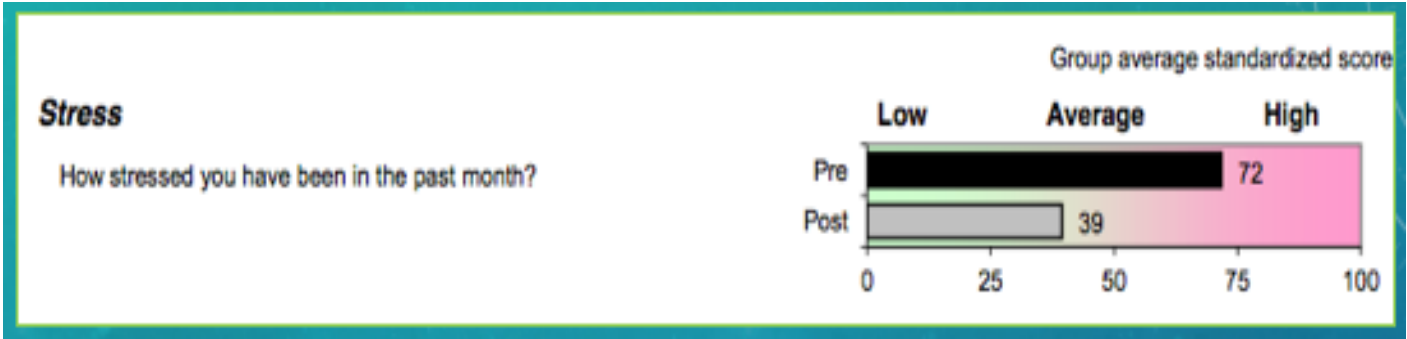


POQA-R4  
Results  
Pretest and  
Posttest

N=12  
Matched Pre/Post

# Stress Group Standardized Score

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# Subscale Questions

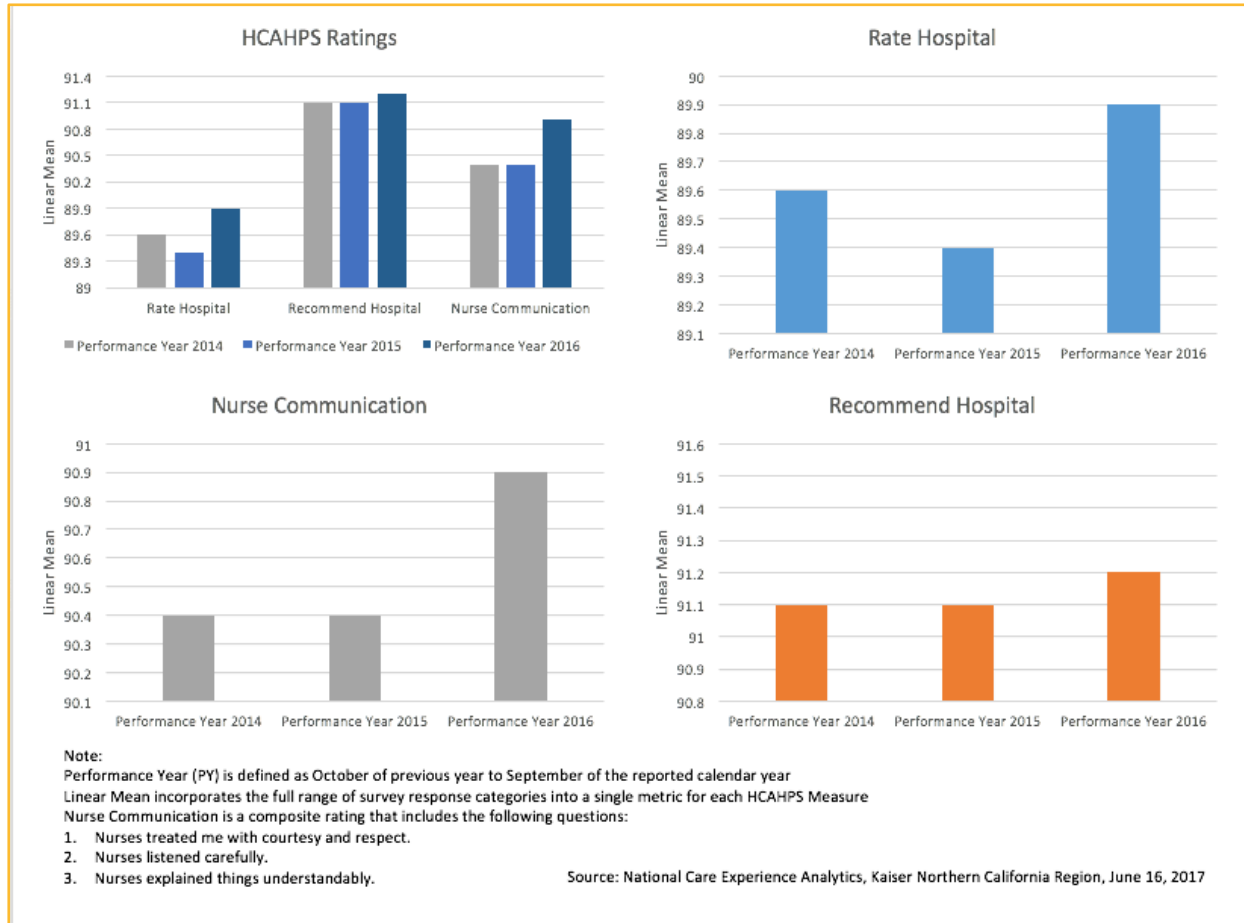
Subscale	Question - % of responses often – always:	Pre	Post (6 months)
Emotional Buoyancy	I wake up and look forward to each day	58%	83%
	Motivated	83%	100%
Emotional Contentment	Thankful	75%	100%
	Calm	45%	92%
	Peaceful	25%	58%
	Relaxed	33%	58%
Anxiety & Depression	Anxious	25%	8%
	Depressed	8%	0%
	Unhappy	8%	0%
Anger & Resentment	Resentful	25%	0%
	Cynical	25%	0%
Fatigue	Fatigued	50%	25%
	Exhausted	42%	8%

N=12 Matched Pre/Post

# Subscale Questions

Subscale	Question - % of responses often – always:	Pre	Post (6-months)
Health Symptoms	Indigestion, heartburn, stomach upset	27%	8%
	Body aches (joint pain, backaches, etc.)	36%	17%
	Muscle Tension	42%	17%
	Headaches	17%	8%
	Rapid heartbeats	8%	0%
Subscale	Question - % who agree or strongly agree:	Pre	Post (6-months)
Relational Tension	I'm aware of power struggles that damage morale	42%	25%
Pressures of Life	I feel pressed for time	75%	42%
	I feel conflict between work and personal priorities	55%	25%
	It takes a lot of effort to sustain my performance	42%	25%
Intention to Quit	I feel like leaving this organization	8%	0%
N=12 Matched Pre/Post			

# Organizational Performance Measures



# Qualitative Feedback – NEL Perceptions

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- I rediscovered that the solution to my stress is all within me
- I use HeartMath intermittently to help quiet the “noise” and focus on the issue at hand
- I felt peace and a sense of contentment
- I am working with our HeartMath trainers to use during staff huddles and at the beginning of meetings to set the intention.
- I feel like myself again!
- It seems we need this type of connectivity within ourselves and with each other.
- It's important to take time for reflection.
- I was able to develop more self-awareness.
- The ability to take a moment to do something for myself that in turn will help me help others is appreciated!

# Limitations

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- **Small sample size**
- **Sample selection bias (NELs)**
- **Non-research project – limited generalizability**
- **Participation was voluntary – higher participation of newer NELs**
- **Self-report survey may not reflect true attitudes, feelings and behaviors**
- **Many initiatives and efforts running concurrently to this program, which requires appropriate caution in interpretation**

# Summary

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- **Flexible, low cost program effective in producing statistically significant outcomes**
- **Coping skills were enhanced, although organization stress remains a concern**
- **1 NEL reported they no longer felt like leaving:**
  - Cost avoidance in excess of \$119K
  - Full Return On Investment (ROI) – Program Cost \$17K
- **In 2016, NEL turnover dropped from 61% to 29%**
- **Organizational metrics stable**
- **NELs self-report increased awareness, consciousness, clarity, control, connection to purpose, and peace**
- **Program supports internal/external spread-Transferability**



# Financial Analysis

Nurse Executive Leader: Cost Avoidance Calculation			
Nurse Exec Turnover	Avg. NE Salary*	Replacement Cost**	Potential Cost Avoidance***
1	239,000	358,500	119,500
2	478,000	717,000	239,000

Cost Avoidance Calculations***
Avg NE Salary X 1.5 = Replacement Cost
Replacement Cost – Avg NE Salary X Number of NE Turnover = Cost Avoidance

Cost Benefit - Cost Avoidance – ROI			
	2016	2017	2017
Program Costs	17,350	17,350	17,350
Cost Benefit	No Improvement in Retention or Turnover Increases	Retention Improves by 1 NE	Retention Improves by 2 NE
Cost Avoidance	0	<b>119,500</b>	<b>239,000</b>
Return On Investment (ROI)	(17,350) – Program Cost	119,500 – 17,350 = <b>102,150</b>	239,000 – 17,350 = <b>221,650</b>

\*Average Nurse Executive Salary is estimated at 239,000: Source 2016 KP National Workforce Planning

\*\*Nurse Exec Replacement Cost is a Calculation of 1.5X (150%) Base Salary: Source 2002, Kosel & Olivio @ VHA

\*\*\*Cost Avoidance is a potential savings/avoidance in replacement costs, which is dependent on retention of Nurse Executives and not intended to reflect potential revenue.

# Conclusions

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- **Integration of Caring Science – HeartMath into NEL orientation, onboarding, as well as training and development programs for nurse leaders**
- **Booster programs – Micro-resilience, Equine Retreats**
- **Increased engagement of existing Caritas Coaches, HeartMath Trainers to spread and embed**
- **Track and demonstrate value (ROI) for sustainability**
- **Enhance workforce systems and processes – adding exit interviews by 3<sup>rd</sup> party and improved reporting**
- **Publish and present findings to increase evidence**
- **Continue journey to evolved leadership and organizational transformation, “Caritas Conspiracy”**

**Thank You!**

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**Questions?**