

Peak Performance Training

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Overview of this Presentation

1. Harvard's Massachusetts General Hospital study
2. What is Peak Performance
3. Three step evaluation –what is considered
4. Evaluation screen – what measures are recorded
5. Selected training screen videos
6. Outline for the training program

Harvard Study

A study at Harvard's Massachusetts General Hospital looked at what happens when, in a corporate settings, subjects are taught relaxation techniques. The outcome was a 43% reduction in the need for health care services. (see details on the next slide)

Relaxation Response and Resiliency Training and Its Effect on Healthcare Resource Utilization (study done at Harvard's Massachusetts General Hospital)

Outcome:

At one year, total utilization for the intervention group decreased by 43%. Clinical encounters decreased by 41.9%, imaging by 50.3%, lab encounters by 43.5%, and procedures by 21.4%. The intervention group's Emergency department visits decreased from 3.6 to 1.7/year and Hospital and Urgent care visits converged with the controls. Subgroup analysis (identically matched initial utilization rates—Intervention group: high utilizing controls) showed the intervention group significantly reduced utilization relative to the control group by: 18.3% across all functional categories, 24.7% across all site categories and 25.3% across all clinical categories.

Conclusion

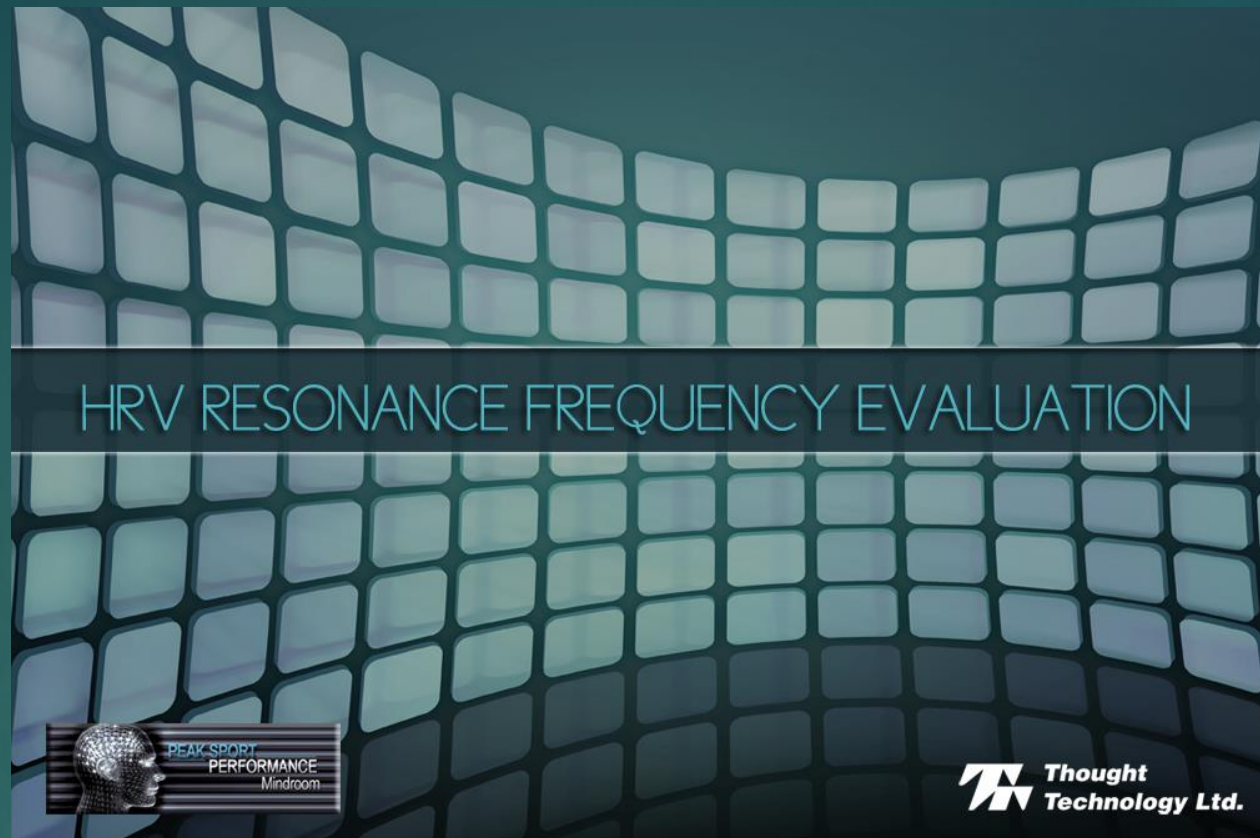
Teaching employees relaxation techniques has the potential to substantially reduce healthcare utilization at a relatively low cost. It can thus serve as key components in any corporations health care programs for peak performance.

Peak Performance Training

is designed to provide management with an integrated set of simple tools to put individuals in a better physiological state to perform on the job. Five quick evaluations will help us to assess a person's reaction to stress and see how well they can return to a state of relaxation. We will also teach a person valuable self regulation skills to help them become aware of their own physiological responses, learn to rapidly return to a restful state after a physical or mental challenge and voluntarily enter or exit a state of readiness. By teaching these new skills we can help them gain the edge they need to better manage their physical and mental resources, access a state of readiness at the appropriate time, and stop negative thoughts and emotions from interfering with their performance on the job.

Heart rate variability (HRV)

is a physiological cardio biomarker used to assess autonomic nervous function which can be recorded over short periods of time. HRV is a heart frequency measurement that looks at three key frequencies: 1] Very Low Frequency – 0.016-0.04 Hertz (VLF), 2] Low Frequency – 0.04-0.15 Hertz (LF) and 3] High Frequency – 0.15-0.4 Hertz (HF).

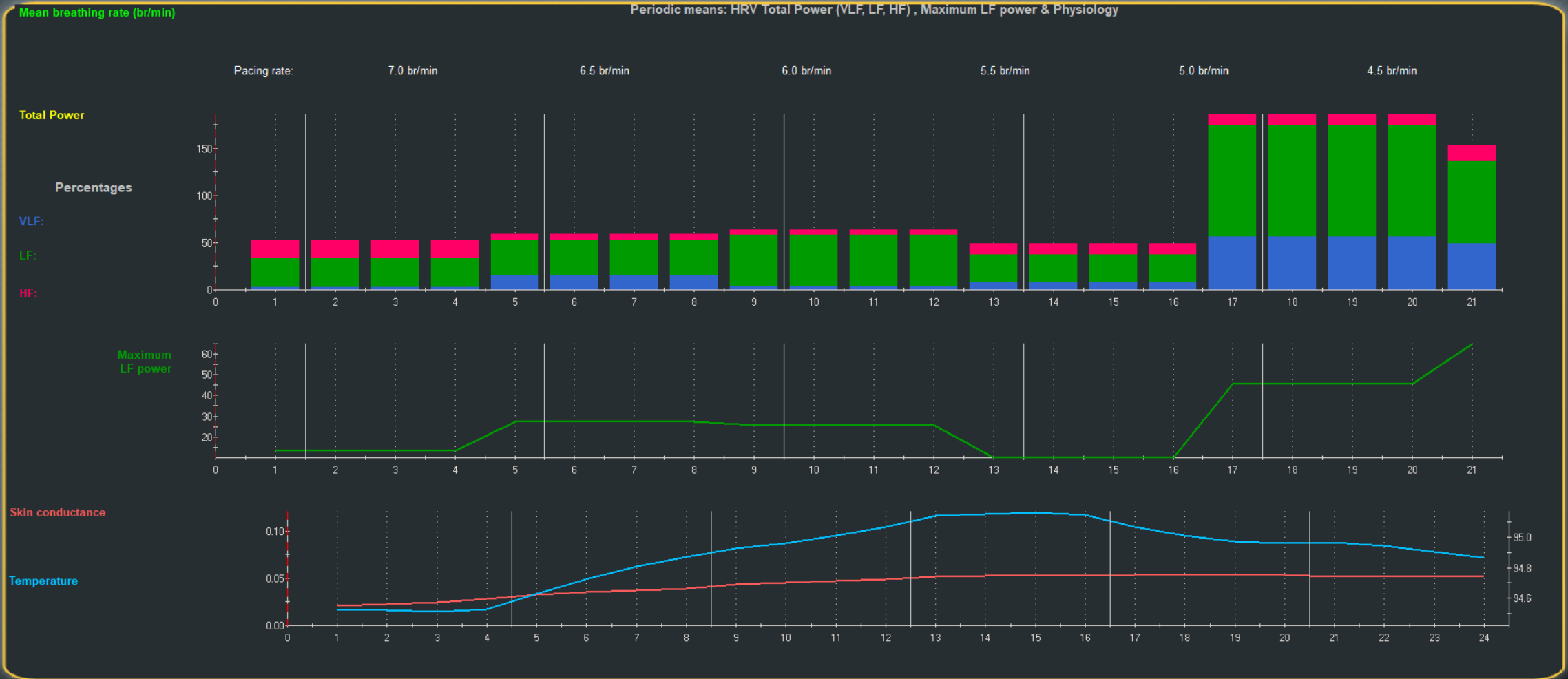


The HRV Resonance Frequency Evaluation

finds the breathing rate that maximizes heart rate variability (HRV), before initiating HRV biofeedback. This breathing rate ranges, among adults, between 4.5 and 7.5 times/minute. Every person has an individualized resonance frequency. Respiratory sinus arrhythmia (RSA) is a naturally occurring variation in heart rate that occurs during the breathing cycle. Consequently, RSA is also a measure of parasympathetic nervous system activity - which denotes "rest and digest" behaviors. Once a person knows their resonance frequency breathing rate, then all the subsequent breathing exercises are done at their individualized resonance frequency.

HRV Resonance Frequency

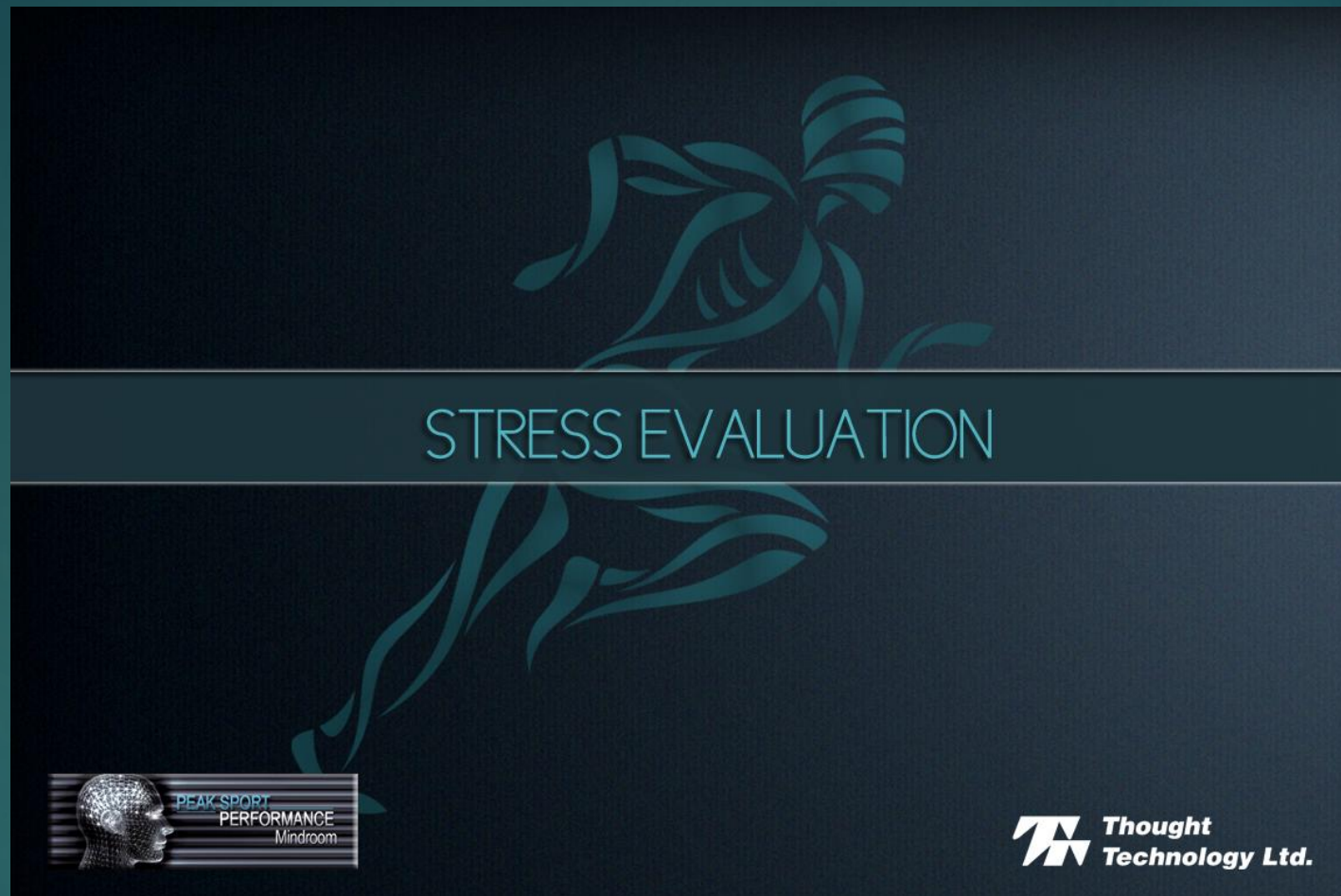
Review - HRV Resonance frequency



Press [Alt]-[Left arrow] or [Alt]-[Right arrow] to move across breathing rates and see values for each breathing rate

Press [Control]-[End] to see the values for the last breathing rate





The Peak Performance Stress Evaluation is a psychophysiological stress profile. It's designed to measure a person's response to a variety of stressors and their ability to return to baseline levels during the recovery periods between stressors. A report will allow me to see where the starting point is, before beginning a self-regulation program. I'll then track changes in heart rate, respiration rate, HRV, skin conductance, skin temperature and muscle tension throughout the assessment. EEG readings will also be tracked for each activity.



BEST VS. WORST PERFORMANCE EVALUATION

Best vs Worst evaluation

serves to enhance a person's awareness of and highlight the physiological differences between the person's best and worst performance. The physiology screen will reveal differences in their physiology from their best vs. worst performance. Often people are not aware of their skin conductance and breathing change during the stressful moments. Stress desensitization and inoculation interventions can then be trained and built into their daily work activities.

Breathing Training Screen

click on image to play

Recording mode. Open Display session. Client: G***, R**. Screen: Training 2 - Hand warming - Animation

File Session Screens Edit Tools Options Hardware View Help

>ID Min Max Thr1 Thr2 30 sec

Training: Hand warming

A: Finger pulse (BVP)

E: Arousal (SC): 1.0 F: Temperature: 89.1

Respiration rate: 12.2 Heart rate: 113

C: EMG 1.0 D: EMG 1.0

To turn the sound off, right-click over the animation and select "Mute Sound".

Stay calm...

F: Temp

Temperature: 89.1

PEAK SPORT
PERFORMANCE
Mindroom

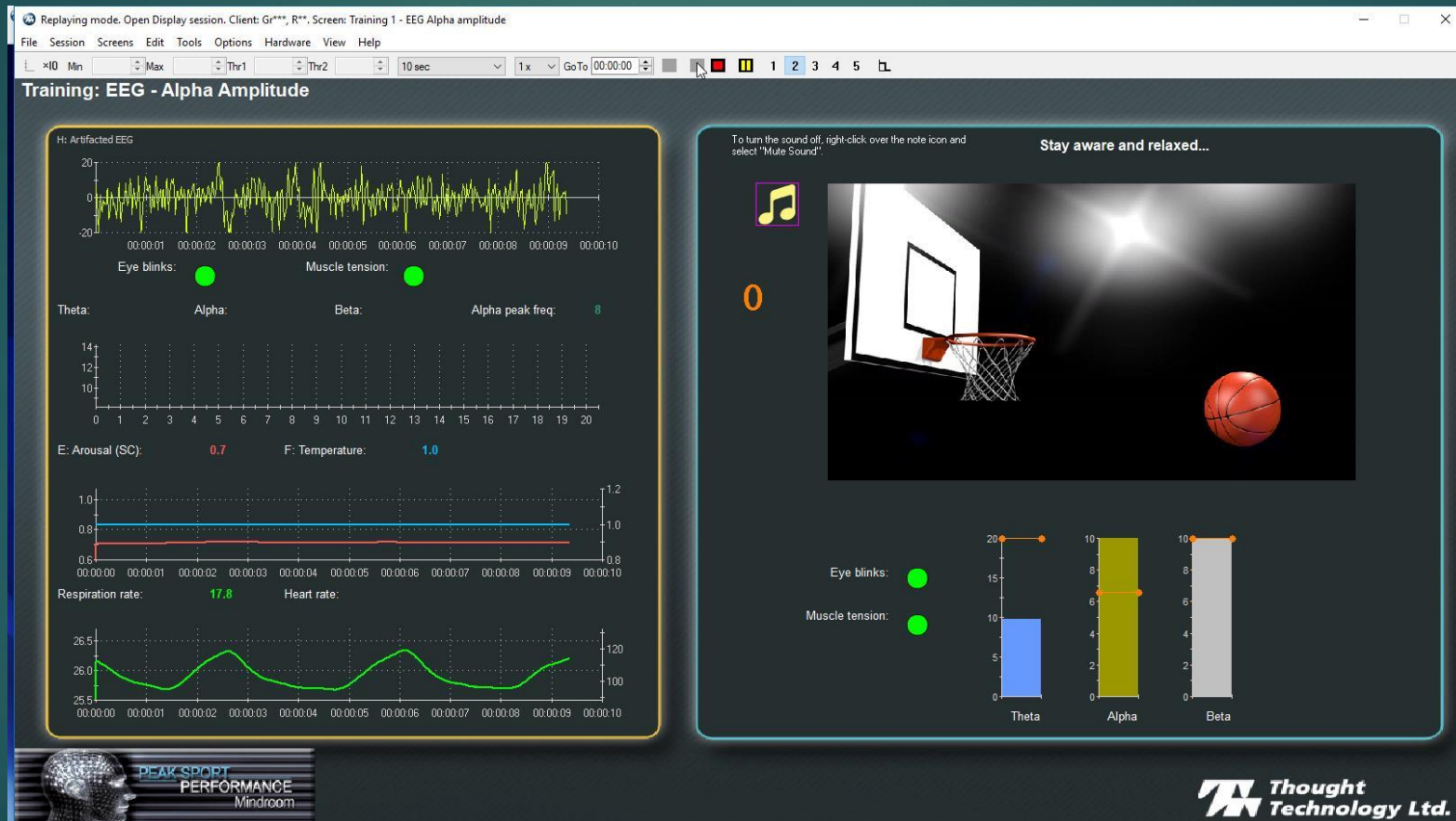
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Relax Mentally and Physically- Training Screen

click on image to play



Charter Peak Performance Training Process

- 1) Prior to first session we will send each person a user name, password and the URL for a website we use to gather critical information related to stress. They will be asked to answer the questions on the Cognitive Emotional Checklist (CEC) and the Interactive Self Inventory (ISI).
- 2) First session - Evaluation session. Three Peak Performance evaluations will be given.
 - a) HRV Resonance Frequency evaluation - This will pinpoint breathing rates that will exercise the cardiovascular system most effectively.
 - b) Stress evaluation - This is used to observe the physiological process engaged while responding to stressful events as they are happening.
 - c) The Best vs Worst Performance evaluation - This will show the contrasts and highlights a person's physiological reaction to perceived success or failure.
- 3) Second session
 - a) Review with them the results of the evaluation and set goals for training.
 - b) Teach them breathing and relaxation techniques that will be used during the training.
- 4) Third through sixth sessions
 - a) Training EEG, HRV, and stress reduction.
- 5) Seventh session- reevaluate (Five Peak Performance evaluation) Using the new assessment results to adjust the training protocol.
- 6) Eighth through eleventh session- Training EEG, HRV, and stress reduction.
- 7) Last appointment (12th) - Post training session – give to and receive from each individual feedback regarding the training.