

**A research at Parma Hospital, Italy, on staff trained in ECEL, “Empathic Care For the End of Life”: stress highly reduced through Tibetan traditional compassion meditation techniques.**

**Winner of the Terzani Award for Medical Humanities 2008**

Author:

Daniela Muggia, thanatologist, President of Associazione Tonglen ONLUS Italy (Charity) and Member of the Tonglen Team for the Empathic Care at the end of Life

Email: [daniela,muggia@amrita-edizioni.it](mailto:daniela,muggia@amrita-edizioni.it)

11. Abstract:

“Empathic Care for the End of Life” (“ECEL”) is a non-religious form of care yet dealing with the spiritual dimension of carers and patients. It is founded on the latest insights from both Neuroscience (Mirror Neurons, Rizzolatti, Parma) and Quantum Physics, and acknowledges Tibetan Thanatology as one among the greatest of the planet. Part of the personnel training focuses on the empathic meditation techniques from this tradition. Two studies were carried on in parallel:

**“ECEL” benefits for hospital staff and economics**

79% of participants tested before, during and after CME (MIB, HADS tests with control group) showed a subjective stress reduction strong enough to exit the burn-out zone. Results were more relevant in those trained for 7 months in “compassion meditation techniques”. The remaining 21% was also studied. Upon extending their training, they also obtained a lasting stress reduction. Outcomes were double-checked by the Hospital Management, and staff absences from work were reduced by 50% still at 18 months after the beginning of the CME.

**“ECEL” Impact on patients and families**

Oncological patients often change hospital to get their treatment. Since hospital staff members are the only stable element of this equation, they were given the task of collecting statements from patients, their families and staff members themselves. Statements on the ECEL impact range from anticipated (self)bereavement for patients and families to analgesic effects on severe oncological pediatric patients.

ECEL training seemed to specifically enhance staff creativity in terms of improving their patients’ quality of life. Short projects on empathic care addressed to Day Hospital oncological patients and hemato-oncological pediatric patients were developed by the same staff members. Empathic techniques replaced standard anesthesia in MR and CAT on oncological patients suffering from severe claustrophobia and oligophrenia. These results encourage us to further research.

## ***Study n. 1: “Impact of meditation techniques on personal stress and economic impact on the hospital”***

This study focuses mostly on the results of the *first part* of the training course entitled: *Anti-stress techniques for the therapeutic staff working in close contact with the terminally ill patients* (24 hours of instruction).

### **Objectives of the study**

**A.** Determine the benefit subjectively perceived in terms of reducing stress on the job thanks to the meditative techniques taught.

**B.** Determine if said benefit is confirmed by objective data (reduction in absences and requests for transfer) used to calculate the eventual economic impact for the University Hospital.

### **A.1 Methodology and research**

#### **A.1.1 Samples and survey frequency**

**1<sup>st</sup> survey:** mid-April, on the *first sample* (the 104 individuals registered *before* the course on empathetic techniques began).

**2<sup>nd</sup> survey:** mid-November, on 59 elements from the first sample, which constitutes our *second sample*; these are the individuals who, at the end of April, decided to continue with the second part of the course and to participate in the experiment, a decision that resulted in them being divided into two groups:

- group 1: self-trained (experimental group): 42 individuals.

- group 2: not self-trained (control group): 17 individuals.

The self-training took place over 7 months between mid-April and mid-November, while the time dedicated to the training and the typology of the meditative techniques used were recorded on name-specific forms.

#### **A.1.2 Test administered**

Joint administration of two officially recognized tests, both founded on a multiple-choice questionnaire that focuses on affirmations of positive skills and affirmations of negative skills: the MBI (Maslach Burn Out Inventory) and HADS (Hospital Anxiety and Depression Scale).

Rather than denote how much stress the individual tested is subject to, these tests indicate how well the subject succeeds in masking it, beginning with the assumption that the higher the stress, the less he or she is able to mask it.

#### **A.1.3 Evaluation system**

While the MBI has its own numerical encoding of the score in reference to the multiple-choice answers, the HADS has none. The answers to this test are therefore re-encoded on a numerical scale by Dr. Passalacqua, a psychologist, so as to establish a standard for jointly evaluating the two tests.

The high compatibility of the two tests can be found in the fact that both can be used to calculate the stress index in both cases on *three levels*:

1. *I. socially acceptable stress index* (parameters within which the stress is low enough or adequately masked, whether consciously or subconsciously, and consequently hardly manifested and therefore resulting individually and socially acceptable)

2. 2. *reliable stress index* (the most realistic values, or the most reliable ones, more coherent with the stress actually present, which is therefore more visible or less-successfully masked than in the first case)
3. 3. *high and manifested stress index* (parameters that indicate that the stress is entirely manifested, or in other words has surpassed the personal control and self-defense thresholds; the person is at the point of no return, or the so-called *burn-out*).

We therefore took an initial survey (mid-April 2005) of the general sample of 104, from which 59 were extrapolated and then continued, as well as a second survey of the latter (mid-November 2005), who were subdivided into two subgroups - the experimental group and the control group - based on the criteria specified in point 2.1.2.1. This allowed a dynamic overview of the shifts in percentage of the stress values or indices described below.

## A.2 Conclusions

### A.2.1 Cases of stress reduction

The overall conclusive analysis of the *unified* stress index (MBI+HADS) detected that 72.9% of the sample studied (59 subjects) recorded a subjective reduction of stress due to the fact that they entered into contact with the perspective of and approach towards suffering based on the Tibetan Buddhist philosophy explained during the first part of the course. This topic was totally new to most of the participants and, in particular, the 42 subjects within the experimental group recorded an average reduction of 12.98% while the control group of 17 subjects recorded a stress reduction index equal to -9.47%.

This means that what was learned during the first part of the course had a long-lasting impact on on-the-job stress throughout the sample as the results are still perceived seven months later; the results of the control group are highly interesting because it is also somewhat representative of the other 45 subjects who abandoned the course after the first part and, we can assume, had no further self-training over the following seven months.

This study seems to confirm the tenet of Tibetan tradition concerning the importance of constant training, even if not intense, in that it lowers the stress percentage a further 3.51%. The average self-training session lasted 5 minutes and 11 seconds per day for 7 months, of which 3 minutes were dedicated to basic meditative practices and 2 minutes to the so-called “compassion meditation techniques”, which are specifically empathetic.

This would also seem to confirm other studies by Richard Davidson, obviously carried out with different methods, where an analogous meditative training was offered to a sample of individuals highly stressed by their jobs for the purpose of measuring the effect on the cerebral neuroplasticity, on health conditions and on the duration of the impact. In other words, the purpose of Richard Davidson’s study was to establish if the increase in left prefrontal cortex activity can sufficiently contrast the amygdala to prevent it from inhibiting the immune defenses. However, his study also gives rise to many other inferences, including the fact that the maximum benefits of training the mind in meditation techniques appear to follow the trend found in studies on cardiac disorders in sedentary persons, where the maximum benefits are found when the subject changes from a sedentary life to only 2-3 hours of physical activity per week.

*experimental group:* with the help of self-training, a large majority of the group (71%) settled at a low degree of stress, and the percentage of subjects at risk (in the burn-out zone) went from 9.50% to 2.3%.

<i>Experimental Group</i>		
Stress index measured	1 <sup>st</sup> survey mid-2005	2 <sup>nd</sup> survey mid-Nov 2005
Socially acceptable stress index	59.50%	71.40%
Reliable stress index	33.30%	23.80%
High and manifested stress index	9.50%	2.30%

*Control group:* during the first survey, this group presented better initial conditions than what would become the experimental group, which may be one of the reasons why there was less inclination to dedicate time to self-training; during the second survey, with no self-training, the anti-stress effect of the empathetic approach is still present and the percentages of the control group shifted:

<i>Control Group</i>		
Stress index measured	1 <sup>st</sup> survey mid-Apr	2 <sup>nd</sup> survey mid-Nov 2005
Socially acceptable stress	64.70	76.40%
Reliable stress index	23.50%	29.40%
High and manifested stress	5.80%	0.00%

For both groups, the reduction in stress mostly corresponded to an increase in positive skills, albeit with rare cases in which they were reduced, even if not by very much.

### **A.2.2 Cases of stress increase**

Stress, however, even if reduced in 72.9% of the sample, increased in some individuals. The percentage was not negligible (27.1% of the sample) and was equally distributed over two groups (involving 28.5% of the experimental group and 23.5% of the control group), indicating that the explanation was not to be found in the presence or lack of self-training.

Before acquiring the empathetic methods offered by the course, the participants knew only one strategy to protect themselves from continual contact with suffering: erect self-defense barriers.

However, these absolutely had to be maintained to prevent being overwhelmed by the suffering of the terminally ill patient; the maintenance of such barriers and the fear of not being able to maintain them was in itself a strong element of stress, even if it was a "recognized" stress. Now, the empathetic approach teaches to accept suffering entirely with no type of barrier, being characterized by a testable status that transcends the concept of "self" and "non-self": such a radical change in one's attitude cannot fail to find a notable source of initial friction in the standard inertia (individuals in both groups who indicated an increase in stress have an average of 15 years of service in the experimental group and 12 and a half years of service in the control group). These dynamics are well known; *by working more on meditative states during an initial phase, the participant becomes more aware of his latent stress, concealing it less and therefore manifesting it more. It is consequentially reduced.* It could therefore be expected that, for some, negative abilities would be temporarily reinforced, together with the stress. In fact, this is what happened.

### A.2.3 Administration following another 7 months and the relative results

In order to verify the validity of this hypothesis, seven months later (June 2006), the 11 individuals who had remained in service, out of the 16 who had recorded an increase in stress, were subjected to a battery of tests identical to those administered previously (MBI, HADS). Stress had dropped in 100% of the cases, restoring the group to the starting level. We can reasonably assume that if these 11 individuals were granted more time and then retested later, after 24 months for example, more progress would be noted.

Their progress over the three surveys, one per column, is illustrated in the table below.

11 Cases of increase in stress with successive reduction			
Stress index survey	1 <sup>st</sup> survey mid-April 2005	2 <sup>nd</sup> survey mid-November 2005	3 <sup>rd</sup> survey June 1, 2006
Socially acceptable index	90.90%	45.50%	90.90%
Reliable stress index	0.09%	54.50%	0.09%
Increased and maximum stress index	0.00%	0.00%	0.00%

## B.1 Methodology and research

For the evaluation of the economic impact of stress reduction in personnel on the Hospital following the learning of empathetic techniques, the study verified the absences of participants in the 6 months before the course and in the 6 months following, also because the Administration was not able to provide reliable data concerning the other administrative parameter of stress or the requests for transfer.

### B.1.1 Criteria for determining the sample

It was decided to carry out the surveys on 97 individuals still in service during the second semester taken into examination, from the 104 initial participants in the first survey (mid-April).

### **B.1.2 Variations in the number of absences in the first sample during the 6 months before and after the first part of the course**

According to documents produced by the University Hospital, the total number of absences amounted to 848 units during the semester prior to the course, and to 417 during the semester following the course, indicating a decrease of 50.8 %.

## **B.2 Conclusions**

The economic advantage for Hospital Administration is not only evident in this initial fact, but because it is a *long-term* phenomenon; stress reduction is founded on trained personnel having new techniques available to them to help maintain a lower level of stress over time. The hours of training (24 hours for 104 participants = 2496 hours) were transformed into hours of presence as early as the first semester.

-----

### **2.2 Study n. 2: “Training in Empathetic Care Techniques: impact on performance”**

This study focused mostly on the results of the second and third part of the ECM course:

*- Care techniques aimed at the terminally ill and their families and operative analyses with results in cases (40 hours of instruction)*

#### **Objectives of the study**

**A.** Determine the impact of training in empathetic care techniques received by hospital staff on the patient.

**B.** Verify that, during their application, the new techniques acquired are not a source of increased stress for the staff, nor of negative economic consequences for the University Hospital.

#### **A.1 Methodology and research**

Dealing with end-of-life patients or those who move from one hospital to another makes it difficult to obtain long-term feedback. The study was therefore based on the “constant” elements, or the personnel themselves, who freely provided a series of testimonies concerning the incidence of acquired techniques on their own working methods. In turn, the staff collected spontaneous testimonies from the patients, which have been included in the study, and some of which are in this poster.

1. *Testimonies collected from staff*
2. *Cases of self-application of the techniques acquired: when a staff member becomes a patient.*  
It has happened that the very same operators who took the course later fell ill, suffered bereavement, or otherwise directly experienced the stress and traumas that patients are subjected to. These testimonies document how the self-application of the methods learned can alleviate the patient's suffering and that of his/her family.
3. *Mini-projects in favor of the ill* started up by the same operators within their departments and duties by applying the empathetic care techniques acquired and beginning with real case studies.

### **A.2.1 Examples of testimony collected from the staff**

#### *Claustrophobic patients*

- C.M. tells of a seriously claustrophobic patient (who had never taken the lift alone) who appeared for an MRI, during which she will be required to enter the cylinder of the device entirely with her shoulders touching the side walls and the "ceiling" a mere 10 cm from her head. The patient had asked if the exam could be done in general anesthesia, while assisted by an anesthetist, which however requires DH recovery. Furthermore, discharge calls for the permission of a family member. The patient was extremely agitated and stuttering with fear. C.M. realized that words would be of no use and so proposed that the patient attempt to relax with no medical assistance. She entered the meditative state first and then guided the woman in observing her breathing. She noticed that the breathing gradually became slower and more regular. The patient held her hand. She squeezed it at first, but little by little her grasp became more like a caress".

The operator practiced a type of empathetic meditation called "loving kindness" learned during the course (a traditional Tibetan meditation technique). It consists of visualizing the patient in a peaceful state of profound happiness, entering first into this state of mind. Neither the operator or the patient was disturbed by the annoying sound of the machine; the operator had the impression that their breathing was synchronized. Upon concluding the 12-15 minute examination, the patient could not believe it had finished so soon. She claimed she felt she had been elsewhere (C.M. suggested her to remember a happy moment or place from her life or to recall a pleasant person). The patient asked to be followed by this operator during future examinations and without anesthesia. She left the room and encouraged the patients in the waiting room, telling them that the exam was nothing if they asked the nurse to assist them. The nurse, in another testimony, says: "If I could, I would pass the treasure of this pocket anesthetist on to other colleagues."

#### *Psychiatric Patients*

- Another case reported by F.R. is that of an oligophrenic patient from the Psychiatric Clinic and candidate for anesthesia in order to remain still during an MRI exam. However, the patient arrived with a slight flu, with a cough and other cold symptoms; the patient was also terribly thin and debilitated, excluding the possibility of anesthesia. Colleagues would have preferred to postpone the exam, but the operator asked to be able to use the methods learnt during the course. Entering into an empathetic state, she noted that the patient had a fair attention capacity. She explained to him that the exam would last 15 minutes and invited him to relax by

concentrating on his breathing and certain areas of the body that were more tense. The patient asked her to enter the room with him and hold his hand.

During the entire exam, the operator helped him to control his tics with breathing and visualizations, and her reassuring presence was a constant reminder to him of her absolute willingness to assist him. The exam was concluded successfully and the operator commented: "The psychiatric patient is often not considered as a normal patient, and his apparent estrangement from the world that surrounds him is sometimes used as an alibi both by the patient, who refuses any type of therapy, and by the operators, who tend to unload him as if he had no dignity. Nothing could be more wrong. By using patience and compassion, making him feel comfortable, even the impossible becomes possible, even if it apparently seems to be a waste of time."

#### *Accompany children*

- R.M. tells of the arrival of a girl in the Day Hospital who was already a pediatric oncology patient for a terminal phase of PNET: "The girl complained of generalized pain. In spite of having morphine therapy, the doctors were not able to sedate the pain. They called psychologists specialized in pain therapy, but after attempting for about an hour, no benefit was to be seen. I asked if I could try. I went into the room; it was dark because they had lowered all the blinds and turned off all the lights. I told her who I was and asked her if I could turn on the night light. She took a deep breath and told me I could. When the light came on, she sought my gaze, took my hands and rested them on her head. I told her to listen to her breathing. I began to meditate. I spent about 30 minutes with my hands on her head, after which she fell asleep and continued sleeping for about two hours. When she awoke, she told me her pain was due to new "cysts" that had formed on her head and that she did not know what they were." The operator realized that the girl needed to understand her illness and that she alone could decide how this could happen. She then followed the rules of accompaniment that she had learned, beginning with listening to the other and accepting the ill person as the "guide". She realized that for this young patient, somehow touching those protuberances made them feel familiar. In the evening, the girl was hospitalized to begin morphine infusions. The next night she complained about pain again, and the mother called the operator to ask her to help her daughter again. "I entered the room and once again she took my hands and laid them on her head, saying to me 'make me breathe'. We stayed like that for about 20 minutes before she fell asleep. In the morning, before leaving the hospital, I left a little note on her bed stand saying, 'Have a good day'. That day was full of suffering because she had begun radiotherapy. When I arrived at 10 pm, I found her mother was waiting for me. I entered her room and, as usual, the girl took my hands and asked me to let her touch those "cysts" she had on her head. After she touched them she cried. I stayed and listened to her cry without speaking. She never let go of my hand or stopped looking into my eyes. Then she said to me, 'Let's breathe.' At about two o'clock, she fell asleep and for the first time she was smiling."

#### *Accompanying a foreign patient: when words are useless*

- L.V. tells about B., a Peruvian patient who arrived with a serious hemorrhage. The diagnosis was cancer of the cervix at an advanced stage. It was decided to operate the next day; the surgery was to be followed up with chemotherapy and radiotherapy. The patient was informed of the definitive histological diagnosis only at the time of her discharge and, says L.V., "I met her when I gave her a folder for the Oncological Centre. Her glance was full of pain. She did not know the language well enough to understand everything that was explained to her. We sat

facing each other and took each others' hands in silence to listen to each other." L.V. used the reformulation technique that she learned during the course: the patient talked about herself, spoke of her children, her distant homeland; they spoke of prognostic statistics. A warm and open silence followed. No one was embarrassed. Then the patient got up and said thank you with a timid smile.

### **A.2.2 Cases of self-application of the techniques acquired: when a staff member becomes a patient.**

*F.R.: testimony of a patient*

- This operator was also oncological patient at the hospital. She wrote: "I would not have been capable of helping anyone if I had not been able to help myself first. When I began "working" I had so many staunch convictions to be overcome, above all because the rational part of our mind tends to let us see what it wants. Dying is a transformation, a change of state that requires preparation in order to accept it in the most serene way possible; it means removing blocks related to egoism, to resentment, judgment, granting forgiveness to those who have wounded us, and closing unfinished business; forgiving wrongs suffered means reaching a conscious state of compassion, finding a motivation for the other person's behavior at that particular time, considering that it was his or her only possible reaction related to his or her capacities and shortcomings at that time. Bringing closure to unfinished business means evaluating the possibility of doing today what would have been more conveniently put off until tomorrow." She added: "I am ready for an eventual passing, and it makes me happy that the others are preparing themselves with consciousness and dignity." Today, F.R. is no longer with us. She was meditating when her lungs collapsed.

### **A.2.3 Mini-project in favor of the ill person**

*Accompanying oncological patients who are seen for a short time*

- The reorientation of the mind during therapies is the main tenet of the small project advanced by an operator in another department; where patients who wish to learn basic meditation techniques are taught mostly techniques from the Tibetan tradition and from the Simonton method. Chemotherapy then becomes a moment of less intensive suffering and "time that we can dedicate to ourselves", to our well-being. Psycho-oncological studies by Simonton have already demonstrated a clearly lesser impact of the secondary effects on patients who meditate and visualize.

*Meditation and claustrophobia during the CAT scan and MRI*

- According to the testimony cited above, empathetic listening to the patient before the examination and the invitation to take a small test is preferable, knowing that the patient will always be able to request the intervention of the anesthetist, who is present anyway. Like nervousness, a profound state of quiet and empathy is also contagious (there are various authoritative and recent American studies); the operator then enters an empathetic state, slipping his/or her hand under the covers, touching the patient, with his or her consensus. This is almost always enough to keep a patient quiet during the exam, which has drastically reduced the need to resort to an anesthetist, without taking into account the impact this has on the image that the

claustrophobic has of himself, which is usually seriously shaken by this burdensome conditioning.

The approach is interesting also in consideration of the increase in depressive behaviors in the West, which can also be accompanied by panic attacks.

## **B.1 Methodology and research**

Only after the second part of the course did the participants begin applying the empathetic techniques learned to their patients, and the objective of this study was to verify if this constituted a worsening in terms of stress and therefore give rise to negative consequences for the Hospital's economic conditions.

## **B.2 Criteria for determining the sample and evaluation parameters**

Collect the direct testimony of the operators about the self-perception of one's own degree of stress and to compare the result with the monitoring of absences before and after the second part of the course, on the sample formed by 52 of the 59 participants who attended the second part of the course (or those who were still in service at the time of the last survey until the end of May 2006).

### **B.2.1 Some direct testimony of the operators**

*C.M. no longer feels impotent when faced with pain*

- C.M. says: "Until a little while ago, I was not able to finish a shift with oncological patients without being overwhelmed by sadness and absolute helplessness in even saying hello and good-bye to the patient. Today, not only do I conclude one shift, but I am serene and, according to these patients, I do a good job. An oncological patient said hello to me saying: 'Do not get tired of being here with us... we need people like you, who make even the most difficult or worrisome exams tolerable.' It was a wonderful gratification. Even if I was not very constant in the exercises, it was a true pleasure to succeed in changing something. The key works"

*No longer feeling empty when faced with suffering.*

- M.B. works in radiotherapy: "A woman who came for radiotherapy for breast cancer was aggravated by other personal and family problems (she had already been operated on the other breast for cancer and her husband, following a screening, had discovered a tumor in the colon with multiple metastases to other organs; the mother had had a cerebral hemorrhage a few days before) my first instinct was to isolate myself from her and carry out the exams as if I were another person." Then she remembered what she had learned, she was newly motivated, and entered meditation. "From this state of mental peace and quiet, I entered the room where the patient was waiting in tears; I put my arm around her shoulder, listened to her ranting, and then I reminded her that she had to take care of herself in order for her to help her loved ones, who had a dire need. I carried out the exam with this state of compassion towards the lady, who thanked me heartily at the end. Even I felt much better and not as empty as I usually do in these painful situations."

### *Working in this Hospital is a privilege to be re-evaluated*

- M.O., of the Day Hospital, wrote: “Working in this Hospital is a privilege to be re-evaluated. The empathetic listening that I learned in the course has been indispensable for helping me put myself in another person's shoes without fear. Their feelings become mine. The patient complained about the excess technology, of the coolness of the operators; this course brought something objective: the reduction of this distance favors a new and real comprehension.” She cites the declaration of the patients following her new approach: “When I come here I feel a little bit at home, I am comfortable”; “Do not make me change department, can't I stay here this evening, too?”, or “Do you work in the department I'm going to?”. But the most touching declaration of all came from a patient that she continued to accompany even outside of the hospital to visit the tomb of her son who had died from a cardiopathy at a very young age: “You are my angels! In my life I have never felt so loved!”

### **B.2.2 Data provided by the Hospital Management**

According to the data supplied by the Hospital, this sample, which we defined as n. 2 to distinguish it from that of point B.1 of the previous study, indicates *a further reduction of overall absences*: from 368 units, the number fell to 253, indicating a decrease of 31.3%. Remembering that these 52 subjects were mostly part of the n.1 sample of the previous study, we can observe that the result in terms of fewer continual absences is long-lasting. Substantially, the reduction has been maintained for a period of 18 months, averaging around - 45%!

### **B.3 Conclusions**

The testimonies of gratifying changes come from the personal lives of operators as well as their professional lives. In any case, the reduction of the same remains and bears the fruit of relational living. The data supplied by the Hospital are objectively subject to the self-perception of the operators.