Health & Performance Benefits of the Inner Quality Management® Programme

Chemical Company — Case Study 13

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Thank You

I would like to thank Dr. Alan Watkins and Chris Sawicki of Hunter Kane Resource Management for allowing me to share one of the case studies of their IQM program. They work mainly with executives in the European Economic Community.

Background

There is now substantial scientific and organisational research to suggest that the success and performance of an individual, a team or an organisation is not due to intellectual, academic or technical ability. These factors are important, but they do not predict success. What has been shown in numerous organisational and scientific studies to predict success is emotional competence: the ability to manage your response to what happens around you and the ability to achieve successful relationships.

The realisation that emotional competence or emotional intelligence (EQ) determines success has led many organisations to introduce EQ programmes as a central strategy in their employee training, from the main board to the factory floor. Unlike IQ, which is largely genetically determined, EQ can be taught.

If individuals are to flourish in a rapidly changing world with continual organisational re-engineering, rapidly changing markets, increasingly sophisticated IT and rapid access to information in addition to increased pressure to satisfy stakeholders, then individuals need to be much more emotionally competent and self-managing. In short, they need to be smarter than before.

Science

Recent research by cardiologists and neuroscientists has shown that powerful techniques are available that can generate rapid and significant improvements in …

- mental clarity, creativity, and decision making
- cardiovascular flexibility
- hormone balance
- immune function

Specifically, this research has demonstrated that there is a profound link between productivity, brain function, cardiovascular health and stress. Learning how to consciously change the quality of the internal signal from the heart to the brain enables individuals to maximise *cortical function*, this is called "brain-heart entrainment." This enhances clarity, creativity and insight which are the key factors determining an individual's personal performance. These techniques are therefore capable of improving personal and organisational effectiveness, adaptability, productivity, and morale.

The Inner Quality Management® Programme

The Inner Quality Management® (IQM) programme is based on this scientific research and has been shown to impact a wide variety of health and business performance indicators. The IQM programme is formatted as a one-day workshop accommodating up to 20 attendees.

Study Design

Because of this compelling scientific evidence, a major Chemical Company organised a pilot study to evaluate the efficacy of this new technology within a corporate setting. The data presented here represents the results of the IQM programme run for the main board and heads of the business units. This data summarises the changes experienced by some 18 attendees on two separate IQM programmes held in September of 1998.

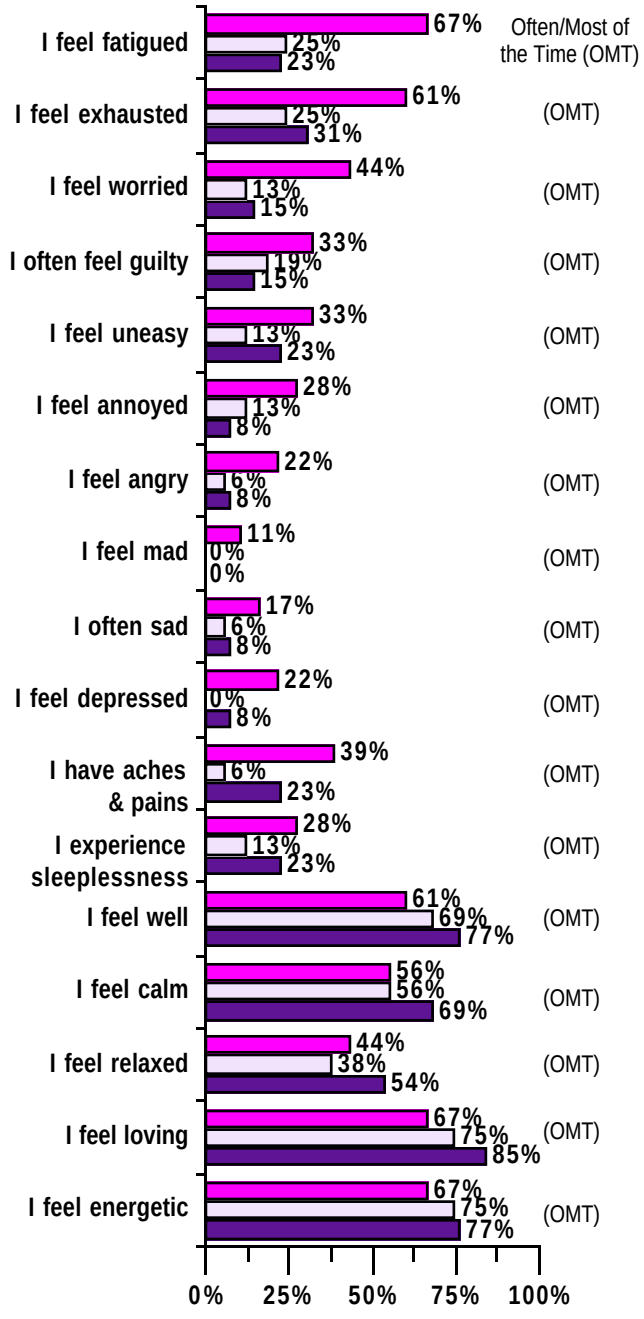
Psychometric Results

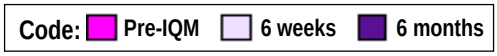
Prior to attending the course, all participants completed an extensive psychometric questionnaire, the Personal and Organisational Quality Assessment (POQA). The POQA addresses individual and business performance issues. It has 58 items scaled to represent 12 constructs. There are five potential responses to each question, ranging from almost never, rarely, occasionally, often or most of the time or alternatively from strongly disagree, disagree, neutral, agree or strongly agree.

The POQA was repeated after six weeks and six months to determine the impact of the IQM programme. In addition to this subjective data, some groups underwent objective assessment of their blood pressure and heart rate variability before and after the IQM programme. The Chemical Company's own medical team gathered this data. The main findings of the POQA are presented below and on the next page. Scores shown below are for responses of Often/Most of the Time (OMT) or Agree/Strongly Agree (ASA).

Personal Data

Sample size = 18





Business Data

Heart Rate Variability Results

Heart rate variability (HRV), as measured by the beat-to-beat variation pulse rate derived from a 24-hour electrocardiogram (ECG), is a very sophisticated physiological measure. It has been repeatedly shown to be a very powerful predictor of all cause mortality and is known to be an important measure of overall health.

The scientific literature suggests that HRV should remain stable over time with a gradual deterioration increasing with age. Significantly reduced HRV suggests an increased risk of disease, premature aging, and poor overall health.

There are a variety of ways of measuring HRV, either over time (SDNN, SDNN index) or by frequency spectrum analysis (HF, LF, VLF, TP, ULF and total power). This data can provide information on the health of the autonomic and hormonal systems depending on which parameter is examined.

All eighteen attendees had their HRV measured before and 15 had their HRV measured six weeks after the IQM programme (two refused and one left the company). Of these 15 individuals, two had very poor quality traces at six weeks and were excluded from the analysis. Of the remaining 13 who had good quality pre and post data, nine individuals were practising the techniques taught during the IQM programme (subjects 1-9) and four individuals were not (subjects 10-13).

Eight of the nine individuals using the techniques improved their physiology, and all four individuals not using the techniques deteriorated (see Table 1). The average physiological improvement in those individuals using the techniques was 17% (range 10-126%) while the average deterioration in those not using the techniques was 25% (range 15-33%), giving a 42% divergence between users and non-users. The improvement in physiology seen in individuals using the techniques was achieved in just 6 weeks, despite them being in the middle of a major company-wide re-organisation. This improvement represents a reversal of the normal age-related HRV data.

Table 1: Percentage Change in HRV indices eight weeks post Programme

HRV Parameter	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13
	USERS									NON-USERS			
SDNN	24	20	30	10	10	11	~	~	-26	-12	-15	-25	~
SDNN index	45	~	~	17	-12	~	27	19	-19	-14	~	-16	-25
5-min. VLF	121	13	~	24	~	~	58	39	-51	-32	-11	-38	-42
5 min. LF	85	~	~	36	~	~	36	35	-39	-14	~	-20	-36
5 min. HF	85	-33	-14	45	-12	-18	80	14	-38	-30	-31	-26	-46
5 min. TP	87	-17		41	~	-12	59	18	-38	-26	-25	-25	-43
ULF	47	61	126	13	30	46	~	~	-42	-27	-35	-46	~
Total Power	53	36	66	19	17	27	18	~	-41	-27	-31	-43	-15

All figures represent % increases except when preceded by a minus sign. ~ indicates changes of < +/-5%

All individuals' data, excluding subject 1, were within the normal range before and after the IQM programme. Subject 1 came back into the normal range following the IQM programme. Subject 9, whose data deteriorated after the programme despite using the techniques also had high blood pressure. This individual's 24-hour trace is being repeated six months after the IQM programme since a physiological reversal in the data would be expected to take longer than 6 weeks in such a subject.

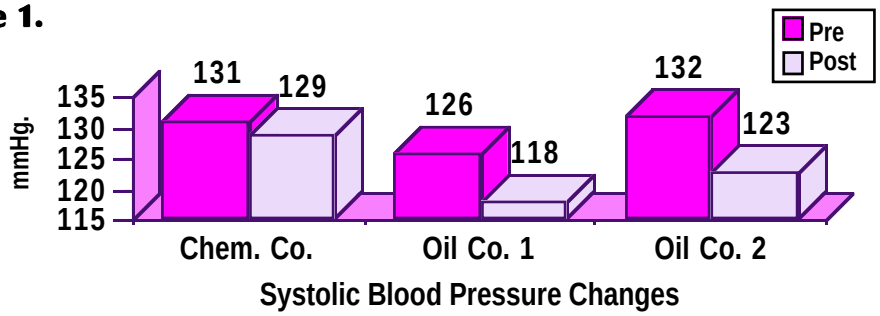
Blood Pressure Results

Attendees on the first pilot study had their blood pressure monitored over a three-week period prior to the IQM Programme. The group average prior to the programme was 131/81 mmHg. Six weeks after the programme, with no other lifestyle changes, the average blood pressure had fallen slightly to 129/84 mmHg. That is an 2 mmHg drop in systolic blood pressure and a 3 mmHg rise in diastolic blood pressure.

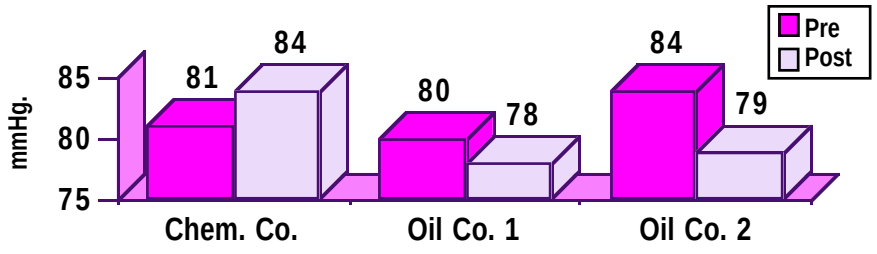
The reduction in blood pressure in this pilot study was less than that seen in two previous organisational case studies (Figure 1). Specifically in two other Oil Companies the group average blood pressure dropped from 132/84 to 123/79 mmHg and 126/80 to 118/78 mmHg. This represents a 9 and 8 mmHg drop in systolic blood pressure respectively and a 5 and 2 mmHg drop in diastolic blood pressure respectively.

The slightly smaller impact on blood pressure seen in this case study is in keeping with the Motorola organisational case study conducted in the USA. Since there have now been five separate organisational case studies in which the IQM programme has been shown to reduce blood pressure, a full scale randomised controlled clinical research study is now planned.

Figure 1.



Systolic Blood Pressure Changes



Diastolic Blood Pressure Changes

The Benefits of Inner Quality Management

- By the end of the one-day programme attendees will learn and be able to use four scientifically based techniques that are highly effective in preventing the negative impact of stress, both psychologically and physiologically.
- In addition to preventing stress the moment it occurs, these tools will help attendees to achieve peak performance by enhancing their creativity, productivity, and decision making.
- 25% of the adult population has high blood pressure (BP). IQM programmes conducted at Motorola in the US, plus the data cited here show that IQM can significantly reduce blood pressure in all individuals without the need for medical, dietary or exercise interventions.
- After one day's training >85% of attendees will be able to use these tools successfully and see for themselves, using computer aided cardiovascular equipment, how their own physiology improves while using the techniques.