

## Contents

### Preface

		Page
<b>Chapter 1</b>	<b>Introduction</b>	<b>3</b>
1	A Case: The outcome of a two-year Leadership Course	4
1.2	Reflection on the phenomena Burnout	16
1.2.1	The patient as a blind spot	22
1.2.2	Understanding Burnout	27
1.3	NHS Health and Well-being – The Boorman Review	31
1.3.1	Rethinking your work – a manuscript	33
1.4	Theoretical framework and the European context Effectiveness of the Occupational Health Care in the Netherlands towards burnout	36
1.5	Theoretical framework	43
1.6	Research questions and methods	57
<b>Chapter 2</b>	<b>The prevalence and development of Human Being Management in Occupational Health since 1996</b>	<b>66</b>
2.1	An assessment of occupational health care in the Netherlands (1996-2005)	67
2.2	External and in-house occupational health services in the Netherlands: a qualitative study of four cases	84

<b>Chapter 3</b>	<b>The influence of Human Being Management-Based Occupational Health on prevention and treatment of patients with burnout</b>	109
3.1	The concept of burnout	110
3.2	Burnout in the medical profession: causes, consequences and solutions – A discussion	127
3.3	The Occupational Health Care Services in the Netherlands: What determines the diminishing ‘recovery time’ factor of burnout?	148
3.4	Burnout in medical professionals: An effectiveness study of a multidisciplinary intervention programme	173
<b>Chapter 4</b>	<b>Conclusion</b>	189
4.1	General conclusions	190
4.2	Summary and overview conclusions	191
4.3	Conclusion	203
4.4	Recommendations for further research	205
4.5	Recommendations	207
4.6	General concluding paragraph	214
	<b>Summary</b>	218
	<b>Samenvatting</b>	221
	<b>Publications and manuscripts on which this thesis is based</b>	223
	<b>Definitions</b>	236



## Chapter 1 - Introduction

### A Case: The outcome of a two-year Leadership Course <sup>1</sup>

---

<sup>1</sup> Within a multinational Dutch company (app. 1000 workers in the High Tech Industry) it was recognised that “value-based leadership” was needed to survive in a turbulent fast-changing economic atmosphere. As moderator of this 2-year leadership programme I became fascinated by the quick progress the group of managers who participated in the programme made. Due to the internal communication rules of the company, I am unable to mention the name of the company in this thesis. Therefore I decided to think of an alternative name and came up with: “The Led it Be Company - LIBC “. I will briefly introduce you to this programme, for which 14 managers were carefully selected on their experience, motivation and skills. The programme ran for 2 years. Two managers left during this programme and continued their careers outside LIBC.

Halfway through the programme 13 managers participated in a 3-day golf event in order to obtain their “Golfvaardigheidsbewijs”, a sort of driving licence for golfers obligatory in The Netherlands to gain access to a golf course. None of these managers had ever played golf before. They all succeeded to get their licence. In the programme, called “Perikles” after the Ancient Greek politician and general, both the individual progress (soft and hardware) and the group progress was monitored (orgware). Each module consisted of 3 days every two and a half months. Each module started with a key note on state-of-the-art leadership by an external expert (university professor, historian, CEO, national hockey coach, entrepreneur, banker, etc.) and was followed by intensive training on software (personal leadership skills, cultural change, engagement, Belbin, insights, value-orientated leadership, time management and self management) and hardware (business administration, sales, marketing, Swot analysis techniques and financial management, finance and accounting in EBITA etc.). Through Perikles we wanted to inspire the middle managers to be able cope with their demands within the team and to be able to address the rapidly changing environment of LIBC in terms of technology and customer demands. In this programme, sense-giving and developing team spirit became the crucial factors for success, in order to build a solid future for LIBC based on values, beliefs and team spirit. Having a clear vision on leadership and being goal-orientated (with the end in mind), it was a kind of a journey that we undertook. Are we doing things right (management) was not longer the basic question, but are we doing the right things became the new paradigm. Alignment of the team and the Management Team was also considered to be of great importance. So these people also got involved, and on the final day of the programme a **summit** of the lessons learned was presented to them. In the next part of this introduction an outline of the outcome of this programme is described.

A leadership programme for the middle management of a multinational electronic consumer-goods company performed over a two-year period (2007 - 2009) resulted in a value-based leadership statement: a statement that can be considered relevant to guarantee success. This statement addresses the basic question of this thesis: How to work as a team on an economic goal and prevent the workers suffering from stress and burnout?

#### The Led it Be Company Leadership

For the leadership journey, three main improvement areas were identified:

- Defining a shared view on leadership
- Recognizing the future leaders
- Sustaining the development of leaders

These main improvement areas were defined and deployed in an open and informal setting. There was a clear direction: the new way of working (the Led it Be Company) in combination with the transformed and collective strategy shared by all employees. The changed 'Led it Be Company' organization gave energy and empowerment, to enable change. The following paragraphs explain in detail what the specific improvements in the area of leadership were.

## **Defining a shared view on leadership**

Various peer groups were formed to think about and discuss leadership on their level. The bases for these “outside<sup>2</sup>-in” discussions were questions like:

Are we responsive enough to the changes we are facing? Are there good practices in the outside world? To discuss and invite people from outside the company to improve insights.

These communities<sup>3</sup> increasingly became platforms for change and improvements. An inspiring MT (Management Team) member as a true “Godfather” for these communities proved to be essential to safeguard direction and to challenge their ideas.

## **Recognizing the future leaders**

The toolsets that had been used within The Led it Be Company did not change but were enriched with “true and authentic leadership” aspects.

For example, the “High-potential Identification” document was assessed on the new leadership insights.

Therefore the following elements were added to this appraisal:

1. Flexibility, responsiveness to change
2. Authenticity and meaning
3. Trust

---

<sup>2</sup> Experts brought in as innovative thinkers and entrepreneurs not working in the same field

<sup>3</sup> Communities within the company are teams and product groups as well the informal cooperation between the CRM and teams, HRM and R&D

4. Personal core values
5. Pride
6. Customer
7. Servant leadership

The 'Leading to Win' initiative already fitted very well in this approach, but also here, various adaptations were made, and the new way to assess people was also visible in the PPM tooling.

The strategy had become an open and easy-to-access process. This enabled (thought) leaders to emotionally "own" the strategy and to act upon it. But it also showed who was truly interested and could form and share a vision, which proved to be a valuable platform for identifying leadership.

### **Sustaining the development of leaders**

The new simplified Led it Be Company's structure proved to be one of the most important pre-conditions to developing leadership. By giving people trust, empowerment, room to manoeuvre and the means, their sense of responsibility was greatly increased. In the day-to-day practice it became increasingly clear that this is crucial to creating an environment of nurturing leadership.

So not only the delegation of doing, but also the delegation of thinking allowed employees to define their own targets and solutions to problems. This raises a sense of responsibility for the end results, but it means quite a different management style. The best manager is no longer the most knowledgeable; it is the manager with the best coaching skills. Managers are not there to control, but to serve the resources.

There was a shift in appraisal of individual results versus team results. The focus of evaluations was more on the success of teams. This energizes cooperation, team spirit and nurtures leadership. The appraisal tools were extended with respect to these aspects.

The “personal score card” was introduced, a tool to assess one’s own personal insights with one’s peers. This offered a very open and clear way to measure personal development. The personal score card also started to play a vital role in the mix of resources in the project teams. Score cards are not secret; they are shared and discussed in the right setting.

A “Personeels-schouw” was introduced. A tool to assess teams and resources in a fast and effective manner, 3 to 4 times a year. The PPM increasingly became an end-evaluation of matters already identified in the “Schouw”.

The coaching process already initiated was taken to a higher level; this was no longer on an incident basis, but structurally used to develop leadership.

Last but not least; the “Perikles - Leadership” course was intensified and former “Periklessers” joined in to explain their own personal journey and lessons learned.

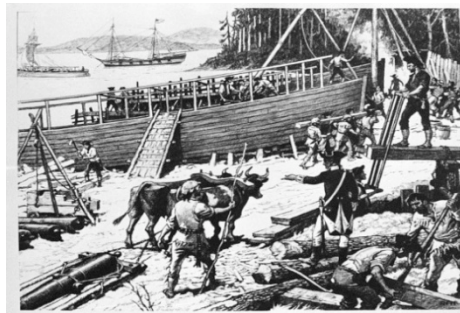
The journey had started...



## The Led it Be Leadership Journey



***"If you want to build a ship, don't drum up the men to go to the forest to gather wood, saw it and nail the planks together. Instead, teach them the desire for the sea."– Antoine de Saint Exupéry***



***Learn to know, learn to do,  
learn to work together, learn to be.***

**Start with the end in mind:**

The Led it Be Company is a strong R&D service provider serving a very broad market. It is a leader in Medical Robotics, Energy Conversion Architectures, Micro fluidics and many other areas. The organization is fast-paced, lean, self-managed and customer-centric and, most of all, it has an over-achievers mentality. Based on trust, customer insights and the many good references in the market, it has a very strong competitive position. This, in combination with its competences, makes it a leader in the market, but there is more than meets the eye.

It is the embodiment of each employee's own personal values in the core values of the company. It was not a directive from the top managers, but a set of core-values that enabled the power of this organization. This is in contrast with the many "culture-change" initiatives that we have seen failing so many times. What is the story behind Led it Be?

If you want to win the game, you need a winner's mentality. If you want to have strong teams, you need team players. If you need customer focus, you need to be truly interested in your customer's business and truly dedicated to his challenges. This cannot be feigned! The strength of an organization needs to come from the core values of the people in it, their own authenticity (Who am I? What do I want?) and their personal leadership (What stance do I take? What do I commit to and take action on?).

Personal leadership requires 'courage', the intrinsic readiness to take risks and put things at stake on the way to a 'bigger' goal. Do whatever is necessary for the bigger picture, irrespective of expectations about the effects. It's this 'road' of determination that counts, not the (temporary) results we're getting. Following this road towards the bigger picture requires attention to others, transcending the self with its 'small' personal fears.

But if we take a closer look we also see other aspects enabling and enforcing the power of this authentic personal leadership. The employees have a high degree of autonomy and therefore contribute to the maximum of their abilities and qualities. They are proud to work within the Led it Be Company and proud of the work they do. The organization is lean in the true meaning of the word. Decisions are made at the lowest possible level, no non-related control structures in the primary process: doing excellent projects for the customer. The work-units are decoupled, highly self-steering units with a flat structure and focused on a set of application domains. Units have their own financial balance sheets (including profit responsibilities, financial means and empowerment to take decisions), but are committed to central management. The primary processes are centred on customer-projects; these form the basis for the organizational structure and decisions.

The role of the MT is strategic, but very close to the day-to-day business. Basically, they are the coaches for the work-units in regard to vision, strategy and market insights, but also in challenging and supporting the project-teams to go the extra mile, showing true leadership, charismatic and inspiring. The Central Led it Be organization monitors the *process* of collaboration rather than trying to generally control *who* works and collaborates on *what*.

The Led it Be leadership statement reflects these values of the organization and the people in it:

### The leadership Journey



In the beginning, Led it Be received a “wake up call”; its position in the market had severely weakened due to the economic crisis. Only the fittest survive, but Led it Be was not in the best shape; it was a complex, multidimensional organization. There was lack of understanding about strategy and ownership was often confusing. Decision-making was not the strongest element in the daily management and changes were time-consuming. So, besides cost-structuring and simplifying the organization, leadership was recognized as an important driver to renewed success, and it all had to be improved at a much higher pace than Led it Be was used to!

Led it Be had a high esteem of its collective intelligence and felt untouchable but...

*“It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change.”*

Charles Darwin

The 4D's were re-invented. Based on the strong internal Led it Be Company values, a forerunner group of managers ("Periklessers") enriched these values with authenticity and personal leadership.

**Delight our customers:**

- Think and act from a customer's perspective
- Everything we do is in the interest of and recognized by the customer
- Be flexible and prepared to go the extra mile
- Amaze our customers by exceeding their expectations in all we do.

**Develop people:**

- Give people demanding targets and provide empowerment.
- Encourage people to take initiative to learn and develop.
- Challenge yourself as well as accept and act on feedback.
- Challenge each other's performance by providing direct feedback.
- Recognize outstanding performance, develop strengths.

**Deliver great results:**

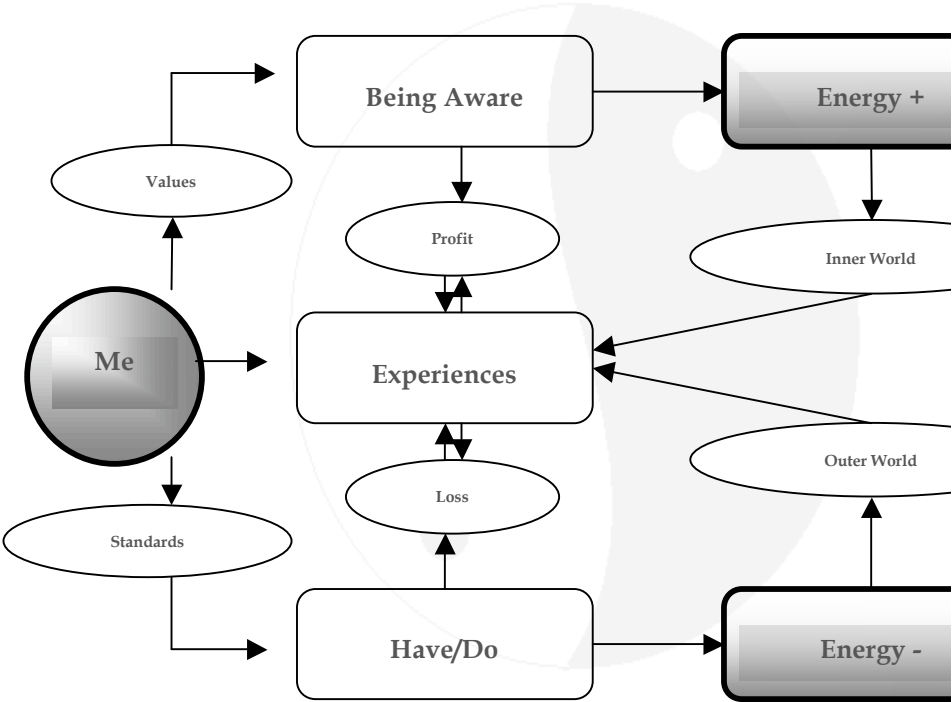
- Set ambitious goals and take accountability for assignments.
- Take clear decisions and implement with speed and discipline.
- Demonstrate drive, passion and quality.
- Constantly benchmark results to stay ahead of the competition.

**Depend on each other:**

- Nurture teamwork and contribute to the best of your ability.
- Trust and empower each other, build on your own and other people's strengths.
- Be open, trustworthy and supportive in the way you communicate and behave.
- Cooperate regardless of organizational boundaries.

In the beginning it was clear to everyone within Led it Be that change was inevitable! The vision of Led it Be was there, with a clear direction and the values of a small set of thought leaders pointing the way (The Led it Be 4Ds). But the capacity and empowerment for change was also needed. Can we do this? And if so, how? The Led it Be Leadership Journey was defined!

Reflection Model on the Burn - out phenomena



## Chapter 1.2 Reflection on the phenomena Burnout

### Definition of a problem

As well-being can be defined as the balance of feeling good and being able to cope with the demands of work and life, feeling rewarded, one of the major problems of our time is the difficulty of keeping up with the work – life balance. The growing number of workers unfit for work due to stress-related problems and burnout is an economic and societal problem to be compared with the environmental crisis in the early 70s which urged the institution of the Club of Rome. The well-being of our generation and future generations is at stake and calls for solutions on micro, meso and macro levels. <sup>4</sup>

Burnout and other stress-related complaints are responsible for about one third of all disability. Roughly 4% of the Dutch working population suffers from burnout complaints comparable to those under psychotherapeutic treatment for burnout complaints (clinical burnout: diagnose work-related neurasthenia ICD-10). In addition, about 20% belongs to the higher-risk group for burnout (score in the upper quarters on the three burnout dimensions) (Houtman Schaufeli and Taris)

From 1997 to 2004 the prevalence of burnout patients stabilized, more or less, with a variety of maximum 8 to 11 percent (CBS third semester 2005). Although this research shows no significant shift in the prevalence of burnout in the years between 1997 to 2004, there are studies showing an increase of burnout in specific professional groups. In several groups, as

---

<sup>4</sup> IFOH –[www.ifoh.nl](http://www.ifoh.nl) and Club of Rome



well as in the period after 2004, there is a sign of more burnout problems among professionals.

Considering today's economic situation, it is to be expected that the number of burnout professionals will increase in the year 2008-2009 due to the higher work stress and the threat of redundancy. The crisis leaves fewer opportunities for self-development training; again a potential cause of burnout. An ill organization does not have room for both spirituality and power; it will focus on financially economic motives. But without spirituality, without the opportunity to nourish the soul, the spirit of people, the work will be done without inspiration. A human being is body and soul, so if there is no soul found in the work, the human being will not be able to function, to be of meaning.

**From my phenomenological considerations with Prof. Paul de Chauvigny de Blot SJ on the development of Burnout in an organization:**

- Burnout (i) can exist because an organization is ill (ii) – There seems to be a relationship between (i) and (ii):
- Burnout is described as the total of complaints as the result of long-lasting work stress, being caused by an ill organization (i)
- Burnout, among other things, is recognized by a lack of energy, motivation and commitment (significance) (i)
- Task-autonomy and self-development possibilities are limited within an ill organization, which increases work stress (ii)

- If there is no significance in the work, the chances of a burnout are greater (ii)

High-risk groups for burnout are professionals in healthcare, service industries and education. Here people are exposed to work stressors (e.g. high emotional demands, enormous time pressure) and limited possibilities to realize (e.g. how to actually arrange things and limited autonomy), to deal with the work stress.

Experience teaches that recurrence can be prevented by setting out personal goals (a personal statute). In this personal statute the personal ambitions, values and standards are drawn up. It will help envisage how to implement these into the professional and the personal life. This way the statute can be used as a guideline when personal choices have to be made. An organization making personal development and personal choices will probably reduce the burnout risks.

Personal periodical reflection, prioritizing, respecting choices of lifestyle and the true realization of what one is doing, are beneficial for orientation of the important values of life, and just that is a strong weapon against burnout.

Where employers consider the healthy career of their employees to be part of their management concerns, their employees will not only be more motivated and happier in their work, but this consideration is also a strong tool in preventing burnout.

## **Hypothesis**

If the well-being of people has no priority in a company, and a healthy company does not contribute to work pleasure, inspiration, significance and commitment, the reaction will be a cynical fundamental attitude and the professional will disconnect, which could lead to burnout.

## **Thesis**

In a healthy company good work relations have priority, relevant tasks are important, quality and spirituality of management are valued and opportunities of professionals to set goals and to learn are rewarded. In such companies, employees are able to deal with work stress. In a healthy company there are moments to relax and enjoy time with colleagues. All these aspects result in inspiration. Several publications profoundly support this part of my thesis.

## **Literature**

Blot de P. Business spiritualiteit als kracht voor organisatievernieuwing, op zoek naar de mystiek van het zakendoen

Lambert E.G., Cluse-Tolar T and Hogan N.L. This job is killing me, the impact of job characteristics on correctional staff job stress. Understanding burnout

**URL's**

<http://www.cbs.nl/NR/rdonlyres/C14006BC-0F2A-42AD-8B35-D499CFEB522D/0/2005k3v4p18art.pdf>

<http://www.depers.nl/binnenland/194270/Meer-huisartsen-met-burn-out.html>

### 1.2.1 The patient as a blind spot

Doctors, nurses and managers in hospitals probably started out working hoping to contribute to the lives of a lot of people. In the current situation this is no easy task. The role of the patient – supposed to be the focus point – seems to be overruled by ongoing and ever-growing efficiency-controlled policies. More rules, protocols, controlling tasks and even more managers make it impossible to take time for a bedside chat, let alone for exchanging some inter-professional knowledge. Too many carer-givers feel they fail in their duties, make mistakes, spend too much time on bureaucracy and therefore experience work stress.

The need to change the approach is clear and tangible, and as soon as the suggestion is made to reintroduce the patient as the focus point, everybody eagerly agrees; but the suggestion never gets any further.

One of the main reasons why a true discussion never gets started is the fact that making the patient the central point does not per se lead to the same conclusion or everyone. A good discussion first requires a definition of the perspective of the patient.

We can determine *four perspectives*: the patient as a system to be cured, as a human being, as a stakeholder, and as an opportunity.

### **The patient as a system to be cured**

A patient goes to hospital for a reason: he needs care. This need has to be taken care of efficiently, with the right treatment, at minimum cost.

Unnecessary proceedings and mistakes need to be avoided, and the patient should be dismissed as soon as possible.

Good, clear and efficient structures are beneficial for everyone, including the patient. Therefore, recently, the focus has been on protocols, management, index systems and evaluations. The assumption that the concept of the patient as a system to be cured is incompatible with the patient as a focus point is wrong, because it serves the patient to be healed and cured fast and efficient. As long as not all rescue is sought in efficiency thinking. The patient is not a machine that has to be fixed, but a human being with a mental and spiritual awareness. A situation where the patient is no more than a registration of data and the only way to get information is desk review, is hardly desirable.

### **The patient as a human being**

A patient, like everybody, is a human being of flesh and blood, with emotions. He or she wants to be recognized and heard, needs company and feels the need to connect to other people. The desire for social interaction is there when staying in hospital, as it is in normal life.

There are several unused opportunities to increase social possibilities.

Modern communication (email, MSN), common activities like having dinner together, plays, watching television, facilitate meeting friends and family in a pleasant ambiance (in fixed or free hours) using good colours, lights, plants, water, pets etc. Some rules, like fixed visiting hours meant to protect the patient, limit the social opportunities. People who are socially strong heal better and quicker, as we know.

Therefore, it is essential that hospitals treat their patients as autonomous and fully-fledged human beings. Most of the time, patients are already affected in their physical autonomy – the body is not working as it is supposed to – and are dependent on others against their will.

Consultation based on equality, commitment concerning day-to-day business and privacy – when the patient is sad, washing or using the bathroom – give patients the opportunity to hold on to their social autonomy. By showing empathy the carer can play an important role in this. Most patients, for instance, appreciate the fact that the one taking care of them, whether their doctor or someone else, recognizes feelings of disappointment, distress, anxiety and anger.

### **The patient as a stakeholder**

Recently, approaching the patient as a stakeholder is more accepted. One of the important success cure scores is the patient's desire to heal. However, illness causes unbalance: the body is not to be trusted anymore. This experience can have an extremely negative impact on the patient's self-image and the healing process. By approaching the patients as a whole, and a fully-fledged person, and by appealing to his pride and self-respect, the patient will – depending on the possible situation – be responsible for his own healing process.

The patient's matured will will emancipate, seen from the stakeholder perspective, which is a positive development. Data shows that when people stop considering themselves as a victim and start to influence their own fate, their situation improves; they heal better and are happier. (McCullough Exline and Baumeister)<sup>5</sup>

Therefore, promoting autonomy, activation and movement as soon as possible is recommended. There are several ways to appeal to the responsibility of patients. In the field of re-integration more and more contracts are set up between carers and patients. Also empowerment and role models, where people are confronted with comparable patients who did well, can intensify the desire to heal.

### **The patient as an opportunity**

The underexposed perspective in healthcare is approaching the patient as an opportunity. The patient is not only in hospital to receive care; he also has much to offer. He gives the hospital the opportunity to gather scientific information as well as finances. It might be wise for hospitals to approach the patient as an opportunity. Both the hospital and the patient will do well if the opportunities that arise when the two meet are fully explored. Patients often like to contribute to scientific research or provide information to improve the level of services. This way doctors can actually experience appreciation from their patients. This is satisfying, which is an important factor in preventing burnout.

---

<sup>5</sup> Dimensions of Forgiveness Temleton Foundation Press 1998



At the same time the patient feels needed and doesn't mind spending his money as long as he feels it is being spent well. Lots of people like to take their families out for dinner; why could that not be arranged in a hospital or nursing home? Or ordering in pizza, work out, visiting an art exhibition, enjoying a music show or movie, or taking a course. Patients are a cross section of society and they have the same needs. Possibilities are restricted only by the limits of creativity and entrepreneurship of the nursing home or hospital.

### **Not either-or, but and-and**

The patient's experienced will is the focus point when the patient is approached in all four ways. It is not a matter of either-or, it is a matter of and-and. This is what de Valk calls 'Human Being Management', the human being in all aspects being the central point. When an aspect – without knowing – is missed out, a blind spot occurs and frustrates the healing process. An intake involving all four perspectives is required, during which which element can be filled by the patient and which needs support is determined. This will lead to a form of triage. A patient with a broken leg, who will be admitted for a short stay, will remain connected with his social surroundings and be cured as soon as possible. He can be approached as a system to be cured and be treated efficiently, whereas more complex illnesses will require more input from other angels.

## **Learning together**

The integral approach is quite demanding for doctors, nurses and management. They must understand the concept of the healing process in order to support the patient, meaning they need not only medical skills and abilities, but also human and social cleverness, management techniques, entrepreneurship and teamwork skills. Medical management training includes methods and techniques based on human beings as a system to be cured, and luckily social and human skills are part of training too, but when it comes to entrepreneurship and management skills there is still a long way to go. Young professionals should be trained to work as a team, and make full use of the strong points of doctors, nurses and managers. No individual can do it all. It is important to know one's own strengths and weaknesses, and those of your colleagues. By having all qualities on board in a team, the patient can truly be the focus point.

### 1.2.2 Understanding Burnout

“Burnout in the Medical Profession: Causes, Consequences and Solutions” by *Maurice de Valk* and *Charlotte Oostrom* highlights the fact that burnout and other stress-related illnesses among physicians are receiving increased attention and have been described in many branches of medical sciences. The study gives a practical, overall picture of the current developments on physician burnout published between 1990 and early 2006, which include literature reviews and original research papers published in international scientific journals. Although the work of physicians can be rewarding, factors such as work-life imbalance, long hours, demanding workload, perceived low control over their work, concerns over and complaints against the doctor and a lack of reciprocity in relationships with patients all reduce job satisfaction, and consequently, can increase the risk of burnout. Consequences of burnout range from relationship problems to substance misuse and even suicide. Solutions should be multidisciplinary and combine preventive measures, including changes to the work environment and management systems with programs to manage burnout.

“The Occupational Health Care Services (OHCs) in the Netherlands: What Determines the Diminishing ‘Recovery Time’ Factor of Burnout?” by M M A De Valk, U H M van Assouw, C Oostrom and A J P Schrijvers says that the occupational health care in the Netherlands is arranged by internal as well as external Occupational Health services (OHSs).

Although the illness burnout says the same, there is a discrepancy in the recovery time of burnout between internal and external OHSs. In total, 156 company doctors from external and internal OHSs were interviewed concerning the arbo curative cooperation and the expected treatment of a burnout case.

A key component of this process was the correlation between the recovery time of burnout in days and the treatment of civil and army services in case of burnout. Besides the preferred treatment options of the two services, there were no considerable differences found between the two services to explain the differences in recovery time of burnout between the internal and external OHCs. Internal OHCs, represented by the army, expected a remarkable shorter recovery time in burnout.

Harsh Bhargava and Annie Acharya (2006) looked at the problem of BPO industry in India and its high attrition rate. The research design, though not very sound with only 40 as samples size and no control, gives some preliminary observations about the problem of employee retention in the BPOs and suggested some measures to overcome that.

Vasuki (2006) looked at the work-life balance and the impact it has on producing burnout. Vasuki reflects on the dimension of engagement put forward by Maslasch et al. (2001) in fighting burnout and discusses the methods that may enhance job engagement and prevent burnout. It is more a topical essay than a full fledged research article but helps to get a view about how management professionals in India started responding to burnout taking work-life balance as a key issue.

Lambert et al. (2007) looked at burnout in a perspective of studying job characteristics among people who are in correctional jobs. This article gives a fairly rich review of literature on correctional job burnout. The context of correctional job staff has been described and 400 of them have been studied using a lengthy, self-filled, 221-item questionnaire.

The hypothesis tested is that quality, open, and supportive supervision have a significant negative effect on job stress among correctional job staff. There is convincingly shown how job characteristics as a group are critical information of the job stress levels of correctional employees. It was also found that more than personal characteristics job characteristics are important in explaining job stress among correctional workers and the impact of job characteristics on job stress varies by the type of job characteristic examined.

De Valk and Oostrom (2007) gave the perspective of burnout in the medical profession. This is a contemporary review and covers the issues of definition, prevalence, causes, consequences and solutions. Stuffed with relevant data, the authors have argued how burnout prevention has become an almost necessary component in any health care program as high burnout among doctors reduces the quality of care for the patients.

Radha Sharma (2007) wrote an article, arguing about the possibility of a model of executive burnout in India. This is a research where burnout has been studied outside the human services profession and among Indian mid-level executives. Not only that, the author has attempted to construct an “Indian model”, which questions the dimension of personal accomplishment theorized by Maslach and other differences found in the Indian context.

By doing a stratified random sampling among 300 middle and senior level executives, 75 each from manufacturing and service industry representing public and private sector organizations in India, Sharma developed a scale of her own, the SBS (Sharma Burnout Scale) and concluded that, the construct of executive burnout is a new phenomenon evolved by her. ‘

A comprehensive Hudson report (2006) takes care of Hong Kong, a major international business hub in Asia and reports alarming rates of burnout among employees in all major industry sectors, with 525 of these companies based in Hong Kong. This report demonstrated staff burnout over the past year with 43% saying burnout has increased compared with 34% when this was surveyed in 2005. Hong Kong reported the highest level of burnout of all markets surveyed in Asia.

### **Chapter 1.3 NHS Health and Well-being – The Boorman Review<sup>6</sup>**

On 19<sup>th</sup> August 2009, a report was published with a simple message for employers in the NHS: 'healthy, happy staff deliver higher-quality service'.

The findings of this Interim Report into the health and well-being of NHS staff are based on a broad consultation exercise with employees and employers, service leaders and key stakeholders. Over 200 experts and trusts across the NHS responded to a Call for Evidence, which was launched in April of this year, and more than 11,000 NHS employees answered our staff perception survey. The group was also privileged to hear the views of staff and managers at a range of health and well-being workshops across the country.

The outcome was clear. A renewed focus on staff well-being and occupational health would make a substantial difference in the NHS. The NHS loses 10.3m working days annually due to sickness absence alone, costing £1.7bn per year. A reduction of a third would mean an extra 3.4m working days a year, and annual direct cost savings of over half a billion pounds (£555m). Other organizations, which have invested strategically in health and well-being services, have achieved major reductions in absence rates. For example, in BT they reduced by 30% from 3.5% to 2.43% in 5 years, and in Royal Mail by 40% from 7% to 4.2% over a similar period. Best practice within the service is not to be ignored; NHS trusts that devoted serious resource to improving workforce health and well-being often outperformed commercial organisations in the reduction of absence rates. Sandwell and West Birmingham Hospitals NHST, for example, saw rates fall

---

<sup>6</sup> Society of Occupational Medicine - October 2009

from 4.78% to 3.86% in just two years, having implemented an impressive trust-wide staff engagement program called *Listening into Action*.

The vast majority of staff surveyed believed they worked more effectively when they were fitter and healthier. The survey showed 80% of staff believes that the state of their health affects patient care. Evidence also shows a clear correlation between high levels of staff health and well-being (assessed by key indicators such as absenteeism and employee turnover) and better overall trust performance. NHS organizations that look after the health of their workforce produce better outcomes for patients.

Some might ask how, with serious funding squeezes mooted after 2011, the NHS can afford to make this investment. We would argue that it can't afford not to. The occupational health measures recommended in the Interim Report represent an investment that will deliver both long-term savings and improved patient care. With future public spending cuts on the horizon, and anticipated squeeze on NHS funding almost inevitable, **provider of Organisations cannot afford** to lose so much every year as a result of staff absence, reduced productivity and continuing bills for temporary staff.

This report sends a clear message to the leaders of the largest workforce in Europe about the importance of occupational health. Employers have no greater resource than fit and motivated employees. This is why it is all the more important they invest in the health and well-being of their staff.



### 1.3.1 Rethinking your work

#### Finding Meaning in Health Care Leads to Increased Job Satisfaction<sup>7</sup>

Nowhere is it more important to find meaning in one's work than in health care. The emotional stress experienced by health care employees to provide quality of care during times of staff shortages, and administrative demands to perform with fewer resources, is taking its toll. The demands of the health care environment have resulted in the need for nurses to find coping mechanisms to decrease the stresses of their work. One such way is to find meaning and fulfilment in their work.

The literature suggests that nurses are most fulfilled when they feel they are making a difference in the lives of others, when they are able to complete a job to the best of their ability, and when they are helping other people learn.

It turns out that not only does finding meaning and fulfilment in one's work – something I call *spirit at work* – take the bite out of stress, it also contributes to a sense of well-being, increases job satisfaction and commitment to one's work and organization. At the same time, absenteeism and turnover goes down. All of which are good for the employee, the patient, and society.

---

<sup>7</sup> by Val Kinjerski, PhD, a leading authority in the field of employee engagement and on the topic of "spirit at work." A consultant, agent of change and inspirational speaker, she helps companies and organizations increase employee retention and boost productivity by reigniting employees' love for their work. 11 Nov 2009

The research of Rhonda Bell, PhD, Health Care Management Consultant provides additional support. Rhonda examined the relationship between spirituality and job satisfaction among registered nurses and licensed practical nurses. She had hoped to gain an understanding of the relationship between the elements of spirituality (purpose and meaning in life, innerness or inner resources, unifying interconnectedness, and transcendence) and job satisfaction (general job satisfaction, intrinsic satisfaction, and extrinsic satisfaction) levels among nursing professionals.

As expected, Dr. Bell's research showed a significant correlation between spirituality and job satisfaction. The more nursing staff felt that they had purpose and meaning in their life, had inner resources to draw upon, and experienced a sense of connection and transcendence, the more satisfied they were with their work.

The relationship between spirituality and intrinsic job satisfaction was even stronger, which suggests that nurses may be more satisfied with the intrinsic factors of job satisfaction if they are more spiritually oriented.

### How to apply these findings in health care?

Employee retention is the key to resolving the nursing shortage issue. Introducing a *spirit-at-work programme* will go a long way to reconnecting nurses to their work, the patients, their colleagues, and their organizations. How? By taking employees through a process of rethinking *their work*. The programme helps them to find meaning and fulfillment by getting to the deeper purpose of their work. Discovering how they make a difference in the lives of others. Developing a sense of community with their colleagues so they feel they belong and share a common purpose. Connecting to something larger than self. That is spirit at work and when we experience it, everything changes.

## **Chapter 1.4 Theoretical framework and the European context**

### **Effectiveness of the Occupational Health Care in The Netherlands towards Burnout**

#### **A. The European Context<sup>8</sup>**

In some respects, the Dutch appear to lead the rest of Europe. Since 1996, all Dutch employers have been required to provide certified occupational health care. The provision of occupational health care for all workers can be considered a very progressive step. In the European Union, worker access to occupational health services (OHS) varies from 15 to 96%, and depends on the country in which employees live and the type and size of the organization they work for.

The Netherlands is not the only country in which the provision of OHS is compulsory. In Belgium, employers are also required to hire the services of a 'certified' in-house or external OHS. Companies in Germany, Finland, and France are not required to appoint a certified OHS, but must provide OHS to their employees. In other EU countries, the provision of OHS is voluntary. Consequently, the Netherlands has the highest cover of OHS provision for employers: 96% for organizations with over 100 employees and 91% for small and medium-sized entities (SMEs). In Sweden, Germany, and the UK approximately 50-60% of employees have access; these numbers are even lower in Spain and Italy (approximately 15%). In addition, the ratio of occupational physicians to workers in Europe varies substantially between 1 per 3000 (Norway) and 1 per 5000 workers (UK).

For most workers in the Netherlands, occupational health care is supplied by large occupational health monopolies operating from outside the

---

<sup>8</sup> Nicholson

workplace. Just five of these external OHS are responsible for around 80% of all Dutch employees.

However, some large organizations have developed their own in-house health care services, just as many large companies in the UK operate some form of OHS. This latter approach is preferred by the European Court of Justice, which has stated that occupational health care should be a primary concern of organizations themselves.

### **Aim of this study**

Despite the provision of occupational health care for every employee, the Netherlands has the highest recorded levels of work stress, sickness-related absenteeism, and work-disability in Europe. It has been claimed that the *commercial* approach that most occupational health services have been forced to adopt is partly responsible for a recent deterioration in the process quality of occupational health care. Clearly the comprehensive Dutch occupational health care system has not led to the desired outcomes, namely a reduction of work absenteeism and the associated costs.

Therefore, the primary aim of this study is to assess the process quality of the Dutch occupational health care services, with special attention to the differences between in-house and external OHS. Our investigation has been conducted by using interviews and additional document analysis.

The overall research question we asked is:

*What are the differences between in-house and external OHS with regard to the process quality of occupational health care provided?*

## **B. Assessment of occupational health care in the Netherlands (1996-2005)**

This assessment tried to answer that question. This research was published as a peer reviewed paper (Occupational Medicine, October 2006) by M.M.A. de Valk, C. Oostrom and A.J.P. Schrijvers and provides a clear overview on the effectiveness of Occupational Health in The Netherlands. The aim of this study was to assess the differences between in-house and external occupational health care services in the process quality of occupational health care provided.

- *Methods:* 26 interviews were conducted with Chief Executive Officers (CEOs) of Occupational Health Services (OHS). The responses and other relevant policy documents were analyzed and described. A key component of this process was to compare differences between in-house and external services.
- *Results:* Notable differences in process quality were found to exist between in-house and external occupational health care systems, with the in-house occupational health care services offering the highest process quality.
- *Conclusion:* The findings of this study suggested that the effectiveness of occupational health services is mainly dependent on its structure (in-house versus external) and on economic factors (profit-driven versus non-profit).

### **C. Process quality of the Occupational Health service versus recognizing Burnout**

But as Occupational Health Care is provided for all employees in the Netherlands it is remarkable that despite this provided care, the Netherlands has the highest recorded levels of work stress, sickness-related absenteeism, and work-disability in Europe.

In 2003, five large external commercial Occupational Health Services (OHS) took care of about 85% of all Dutch employees (CBS 2003). Concerning the process quality, defined in terms of efficacy **the in-house (non-profit) OHS** is better suited to providing the ability of care at its best to improve health.

The author of this thesis concluded that the high process quality provided by the in-house service is concentrated on preventive measures, focused on long-term improvements and is more integrated into the organization it works for. This might be the reason why the expected recovery time of burnout dealt with by the internal OHS is considerable less compared to the external OHS. However, because of the high costs, only a few companies can afford these services for their employees. Usually employers have to choose external OHS and are therefore forced to choose a sickness absence policy. This policy includes less time for periodic health examinations, workplace surveys and recommendations regarding work organization and working conditions.

With this, another focal point concerning the working habit of companies arises. Formerly, companies worked according to the principle of 'human resource management' (HRM). The human being is seen pre-eminently as capital of an organisation. Motivation, quality, inspiration and responsibility are particularly critical success factors of a company.

The accent is to focus on improving present-day capacity by using the human being as a critical success factor. Consecutive psychological pressure will eventually lead to burnout, also known as EES: emotional exhaustion syndrome, defined as a disorder that usually makes its début in the mid thirties with characteristic symptoms of exhaustion of body, spirit and soul. This usually arises in a period of extreme stress, after traumatic events or events happening consecutively, without a break for recovery. Physicians are especially vulnerable for burnout, given the nature of the work, the working environment and, in many cases, the lack of support.

The best treatment is prevention (focusing on bringing emotion and cognition into balance with each other). The employee can reach this by following special 'master class self management' courses with the main goal of awakening each boundary and, in so doing, creating a healthy, effective and pleasurable working environment.

Employers also fulfil a key-role in this process and it is up to them to create a healthy environment where, besides the wish to make a career for one's self, there is also attention for the opinion of the employees in what they find important for their company.



In the employers best interest it is better to manage the company according to the principle of 'Human Being Management', in which humans play a central role. According to the 'Human Being Management' principle, an optimal working climate can be created when work-related stress is brought back to an acceptable level. 'Human Being Management' approach focuses on healthiness in career, a **respectful** approach among employees and a healthy organization.

As mentioned in 1.4.B, we examined the strengths of occupational health service (in the context of social medicine) in The Netherlands by means of a qualitative (Donabedian) study of the differences between external and internal occupational health services in The Netherlands. The published article on this phenomena was triple A peer reviewed in the UK Occupational Medicine – Oxford Press. We raised a base-line question of whether there was a value-driven or financial-driven orientational difference in these two types of service rentals to businesses and organizations (obligatory in The Netherlands by Law since 1995).

One of our focus areas was the way these services were aware of how the OH service and its professionals address Burnout in the working population under their care. The bigger story (Boje) behind these two types of services (organized in a social and a political context) is significantly different.

Nevertheless, all OH Care services (so-called Arbodiensten) have to follow legal and certification schemes according to ISO 9000 (the broader context or bigger story). Within this bigger story it is difficult to take into account the fact that individual workers have a different agenda and need time and personal care to be successful in being cured; giving sense to the work is one the relevant factors (small story).

We discovered individual workers often seem to have the focus on giving sense (spiritually in work and life) and Arbodiensten follow procedures rather than looking into the phase and lifecycle of their individual client.

The external (large scale) services seem to be more interested in the overall financial picture of their own enterprise (money driven) than small internal services, who try to focus more on care and solving the problem in a social context (value driven). This finding has been published in a triple A reviewed article, as was a specific study on the significance of preventing Burnout in medical professionals, which was used as a key article in this publication.

**What all the underlying published studies have in common is that value drive in the Arbo service seems to benefit the patients and accelerate their cure.** Small-scale internal Arbodiensten make recovery periods shorter. On a larger scale this leads to specific recommendations on how Arbo services should be organized (i.e. on a small scale) with value driven professionals. This results in specific recommendations on how patients with a burnout should be treated, be cured within a certain period of time and be reasonably certain of not having a recurrence of their complaints (case studies).

The following recommendations and analysis of weaknesses and strengths have been given by a panel of experts in the field on the outcome of the findings of a meta-study which covered a period between 2003 and 2008. In the following pages I will try to explain what the impact is of my findings, mentioned above, towards the phenomena of burnout.

## **Chapter 1.5 Theoretical framework**

My underlying ideas are described in this introductory chapter. The current functioning of occupational health care in the Netherlands, the fact that there has been hardly any systematic research done, the quality of life and health care in relation to the work/life balance, and the high prevalence of burnout in our society are the most important reasons for conducting this research.

### **A. Human Resource Management and Well-being Management<sup>9</sup>**

Many entrepreneurs and organisations nowadays work according to the principle of 'Human Resource Management' (HRM). The field of the HRM consists mainly of a number of disciplines, which are used to regulate the human capital in the organisation. These disciplines are frequently divided into employee selection, training, appraisal and reward, duties which are frequently the task of the staffing department of the organization.

Jackson and Schuler use HRM as an overall term that includes the following subjects:

- (a) Specific HR activities such as recruitment, selection and reward,
- (b) Formal HR policy that stipulates the development of specific HR activities, and
- (c) General HR philosophies, which stipulate the values and standards behind the organisational policy.

---

Ideally, these three subjects together form a system that attracts, develops, motivates and preserve staff so that the organization functions effectively and survives. People are seen as the pre-eminent capital of an organisation. Motivation, quality, inspiration and (a sense of) responsibility are particular success factors critical of the venture.

The emphasis hereby especially lies on improving the current performance capacity at which people are seen as a critical success factor that forms the so-called spirit capital of an organization. Strategic HRM is also defined as 'an integrated management' – and organizational approach that aspires to a strategic consistency between venture objectives, organizational structuring and human qualities.

HRM has a strategic meaning within an organization and consists, among other things of: recruitment and selection, appraisal of the task implementation, reward, development (being able to carry out current or future tasks) and education. Strategic means that all these elements are aimed at ensuring employees are or will be able to fulfil their contribution towards the venture objectives.

**There has recently been increasing criticism** of the HRM approach. For example, there are only a few strong theoretical models, which explain the role of HRM in the organization and the determinants of the different HR disciplines. Moreover, until now there has not been much integration between the different components of HRM. The technical innovations within different disciplines are mainly developed at micro level and the sum of these developments in the different disciplines forms the field of the HRM. Therefore, within the definition of HRM, a coherent theoretical framework is missing. (Wright and McMahan)

Volberda foresees the end of Human Resource Management. 'The cause of sickness absence does not lie in the secondary labour agreements, but has to do with motivation. Many organizations have been organized monotonously and are badly managed. That is why people become sick', according to Volberda (in *Intermediair*). It would be nice if ventures and organizations first aspire to be good employers for their employees.

The notion that the HRM approach is not always the ideal strategy of organizing the human capital seems to come slowly. Unfortunately, the Netherlands also has a high sickness absence, regardless of its high labour capacity. The percentage of working people with serious complaints of burnout is a minimum of 5% (Houtman, Schaufeli, Taris).

The HRM approach especially fails in the policy concerning sick employees, because a large part of this staff absence is caused by mental complaints (approximately 30%—De Valk and Meyer). For this reason, the HRM approach has been further developed in many companies and organizations as an answer to these specific problems, but this development is not sufficient.

Although most of the ventures and organizations have both existing (and/or making profit) and being good employers for their employees as their objectives, the attention for the people seems to stand, unintentionally, increasingly under pressure. One must stop the negative spiral of high output and high dropout, which puts the attention for people under high pressure.

From the beginning, critics of the HRM approach wondered if putting people centrally would be a satisfactory solution for the phenomenon of burnout, seeing as people - **as a whole** - have been strongly underexposed in the current performance-specific society. For this reason these critics plead for a new concept of handling staff: a 'Human Being Management (HBM)' approach which puts the 'complete' person at the centre, with his questions of meaning, his relational nature, and his need for dignity and respect. Key terms for an approach in the field of 'Human Being Management' are attention for the individual, involvement and communication at all levels within the organisation. This can only be realized by investing in the relationship of 'people' to 'people'.

A good 'Human Being Management' approach consists of three elements:

- Quality: 'say what you do and do what you say';
- The customer is the one who determines whether the supplier has stuck to the agreements;
- The quality of the organisation determines the quality of the services provided to customers.

In the last decade there, outside of the imperfection of the HRM, a number of developments have occurred that require an HBM approach. The ventures of today should operate from an area of unlimited stability. This is the only justified way of approaching the increase of the unpredictability of a company's climate, which is the consequence of the economic and technological strengths of the last years.

Because the organization can no longer fulfill its role of institutionalized guarantee of certainty, we see a widespread phenomenon of mental release. This while, to our knowledge of intensive services and information economy, there is more need for jobs, which require complete psychological, emotional, creative and intellectual involvement. Another development is the shortage in the labour market, where too few people have to cope with the quantity of work, which makes work, for more and more people, a source of unhealthy stress. The social structure within the organization erodes, coffee breaks are skipped and discussions of progress are held during lunch. there are fewer and fewer 'areas without danger' present in organizations; areas where there is room for rest, faith and safety.

'The Human Being Management' method is a necessary extension of 'Human Resource Management'. Many companies and organizations have already introduced this preface in their policies. Moreover, the 'Human Being Management' approach, which is used in a few occupational health care organizations, is commercially seen as of subordinate value but it has a more positive influence in the area of people. By putting people at the centre of things, it is possible to achieve progress in both primary and secondary areas. It offers the occupational physician numerous possibilities to carry out his work in the broadest sense of the word and it gives him the opportunity to actively establish a policy in respect of work-related absence.

Essential for an effective 'Human Being Management' policy is the ability to be there for each other all the time, the opportunity to learn how to approach each other professionally (structured intervention in feedback sessions) and the availability of coaching within the organization for every employee. According to the 'human being principle', an optimum working climate can only arise within an organization when all work-related stress has been brought back to an acceptable level and one works according to the so-called ABC-principle. This means that there is *Attention* for the individual within an organization, that the organization is really concerned about possible problems in work and private life, and that it shows its presence by *Being There* and *Communicating*.

Given the basic principles in the field of promoting health in the workplace (primary and secondary prevention) it could be possible to force back the labour level and the labour-related dangers by using the 'Human Being Management' approach. The 'Human Being Management' approach focuses on health in career, on respectful approach of people in companies and on a healthy organization.

A number of companies and organizations skillfully anticipate the identified problems. They aim for and improve 'Human Resource Management' in the fields of capability management, awareness of career policy and stress management, thereby putting people at the centre. By doing this, it is possible that the 'Human Being Management' approach can work as a strengthening and additional factor in the field of Human Resource Management. With this point of view, the vision of the occupational physician, as a doctor for labour and health and as a consultant for organizational health, **reaches its right more in** consequence of this more proactive occupational health care it is possible to reduce sickness absence, which in turn has the side-effect of reducing the input of people incapable to work in the WAO/ WIA (Work Act Legislation).



## **B. Burnout**

Sixty percent of the Dutch working population complains of stress. (Schaufeli and Taris) Stress itself is not detrimental. It must be seen as a positive tension, which makes it possible for people to perform under pressure. Stress only becomes problematic if the time to recover between periods of stress is not sufficient. In such cases, people head increasingly towards a syndrome, which has a huge impact on living: namely burnout.

Stress-related complaints, such as symptoms of burnout, cause approximately one third of the number of causes of work incapacity. Presently, one in ten working Dutch people have to contend with symptoms of burnout. Particularly when people try to give their life meaning through their work and fail, burnout is frequently the result. Burnout can therefore usually be seen as a crisis of meaning in which the individual ends up.

The way in which work in an organization is organized, how people communicate with each other and the openness for the individual needs of employees, are important factors in determining the risk of burnout. Because of output orientation, the dominance of objectives to increase production, consumption and living standards, input, people (as a labour factor) are easily overlooked. This clarifies why HBM is especially important in controlling burnout. Putting the 'whole' human being central in the organization, with his meaning and questions, removes an important cause (motivational/existential component) of burnout.

The core of the problem of burnout is tackled by the HBM approach, and for this reason burnout has been chosen as a syndrome to illustrate HBM in this dissertation.

Moreover, the author of this dissertation has wide experience in treating burnout patients; burnout is a term alive in society, and burnout is called the new disease of the people.

Burnout is characterized as a mental state of exhaustion as a result of the disturbance of the energy balance, as a result of which it is no longer possible to successfully carry out daily activities. Burnout can be considered as an identity crisis that someone finds himself in; it involves a fundamental re-sensing by the person himself. For the term 'burnout' to be correct, the complaints have to be work-related.

However, no indication concerning the origin of the complaints is given. In 1974, the pioneers of burnout research, the American psychotherapists Freudenberger, Maslach and Jackson, defined burnout as:

*'A psychological syndrome or emotional exhaustion, depersonalization and reduced personal accomplishment that can occur among those of us who work with other people in some capacity.'*

Freudenberger describes burnout as a process which leads to dysfunction, gives rise to feelings of mental exhaustion and which finally leaves the employee feeling empty and having no energy. Freudenberger considers burnout to be a non-stigmatized label of a situation in which every normal person, if he is asking too much of himself, could find himself.

Maslach defined the three dimensions of burnout as follows:

The first dimension, emotional exhaustion, refers to mental and physical fatigue;

The second dimension, depersonalization, and means that, for self-preservation, people adopt a particularly cynical, negative attitude in regard to the people they have to work with;

The third dimension, reduced personal competence, is related to the feeling that they under-perform at work, as a result of which it is possible that doubts about their own efforts arise.

From this, Maslach constructed a self-appraisal questionnaire, the so-called Maslach Burnout Inventory (MBI), which is the instrument most used to measure burnout. The Dutch MBI version, which is modified slightly in regard to the original, is known in the Netherlands as the Utrechtse Burnout Scale (UBOS), a work-related mental state of exhaustion.

Given this superficial description of the phenomenon burnout, the author of this dissertation developed a catchy definition for this phenomenon in 1999. He defined burnout as *EES: emotional exhaustion syndrome*, an impairment which generally makes its debut in the third stage of life and which is characterized as feelings of exhaustion of body, spirit and soul, frequently arising in a period of extreme stress, after radical events (life events) or events happening consecutively, without a break for recovery.

Not only the work itself, but also the fact that it is no longer possible to meet the demands and desires of life, family and work or the unemployed situation (misbalance between have, do and be), play an important role in causing this image. The sense of work is literally 'knocked out'.

This definition of burnout is also used by the Council of Social Development Raad voor Maatschappelijke Ontwikkeling RMO. The scientific committee of the international professional association for labour medicine ICOH (International Committee for Occupational Health) Scientific Committee, has also acknowledged the definition above.

It is important that burnout is not confused with depression. A large difference is the mental state. People with burnout are rather sad, stressed or angry, but not depressed. They can still enjoy things, although they do so less because of their exhaustion.

Especially in the service sector, such as nursing, education and medicine burnout occurs a lot. Nevertheless the personality frequently plays a large role in developing complaints of burnout. The personality stipulates how someone handles matters such as workload pressure. People with an increased risk of burnout frequently have the following qualities: they are ambitious, focused, and they have the need to prove themselves. On the other hand, they are also perfectionists, dutiful and dedicated. The person in question has to once more define his or her personal values in relation to the environment in which he or she is functioning, and he or she has to translate these findings into new behaviour towards his or her environment.

The best results so far in the treatment of burnout are reached by following active, targeted and specific training in behaviour, an important theme of which is giving meaning. According to Pines, our need for a significant life and for doing things we find useful and important could also be at the root of burnout. This is traced back, for example, to care workers in health care. These people aspire to provide a positive contribution to the well being of humanity. For this reason it is also very important for recovery to spend time in fundamental consideration of giving meaning, as well as spending time resting and relaxing, especially if sense of life is sought in work alone.

### **C. Occupational health care**

If the HBM approach can play an important role in the prevention and healing of work-related mental disorders like burnout, it will soon come in contact with occupational health care. Occupational health care is a multidisciplinary field responsible for protecting the security, health and well-being of people in the work place. The "International Labour Organization (ILO)" and the "World Health Organization (WHO)" have developed the following definition on their 12th congress concerning company health:

*“Occupational health should aim at: the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations; the prevention amongst workers of departures from health caused by their working conditions; the protection of workers in their employment from risks resulting from factors adverse to health; the placing and maintenance of the worker in an occupational environment adapted to his physiological and psychological capabilities; and, to summarize, the adaptation of work to man and of each man to his job.”*

Important developments within the occupational health care sector in the Netherlands have taken place over the last ten years. The Dutch government did not have a specific preference for an internal or external occupational health care service.

However, in the period from 1994 to 1998 only government-certified occupational health care services were permitted. Since 1998 all companies in the Netherlands have to join an independent, certified occupational health service. However, from research under occupational health care services, employers, employees and insurance agencies, it becomes clear that it is believed that this certification, with a quality system equal to the ISO 9001, is inadequate for rectifying the quality process. Partly under pressure from the alliance of the European Court of Justice and the research into the above, the government discarded the obligation of hiring a certified occupational health care service on 1 July 2005.

Company health care in the Netherlands is regulated by an internal or external, commercial occupational health care service. Occupational health care services can therefore be present as an internal service of a company, but it is also possible for companies to hire an external occupational health care service to regulate all necessary activities.

There are five large commercial occupational health care services that insure approximately 85% of the Dutch working population (CBS). At the moment these services hold a monopoly position in the market. In this way, people are not put centrally, as expressed in the previously-mentioned 'Human Being Management' approach, but are considered as capital. This approach is closely connected to the approach of services in which people are seen as strategic **chest-man**, as is the case in the traditional 'human resource management' approach. Some large companies can pay for their own, internal occupational health care service, just like many large companies in the United Kingdom.

However, because of the cost only a couple of medium and large companies have their own internal occupational health care service. This development is contrary to the treaty of the European Court of Justice in 2003, which requires that occupational health care must be regulated primarily by the company itself (internal occupational health care services). One example is the armed forces. In the Netherlands, occupational health care in the air force, the army and the navy has been regulated by three independent, certified internal occupational health care services from the beginning. However, an internal occupational health care service is seen as almost financially impossible for small and medium-sized companies.

If you look at the numbers, occupational health care for employees in the Netherlands leads the way compared to other European countries. The proportion of the occupational health care organizations with respect to the number of employees is large. In the Netherlands 96% of employees working for large employers (>100) have an arrangement concerning an occupational health care policy, and in small and medium-sized companies this percentage is around 91%. In Sweden, Germany and the United Kingdom approximately 50-60% of employees get occupational health care. In Spain and Italy it is 15% (Oostrom, Schrijvers and Valk de M., Occupational Medicine October 2006)

Access to occupational health care strongly depends, therefore, on the country of the worker and the type and size of the organisation in which they work. The Netherlands is one of the few countries in Europe in which an occupational health care service is compulsory. Companies in countries such as Germany, Finland and France do not have to hire a certified occupational health care service, but they are obliged to offer occupational health care. In other European countries offering occupational health care is optional.



## Chapter 1.6 Research questions and methods

The studies of this thesis concern the process quality between internal and external occupational health care services. The studies question whether there is adequate attention for the relationship between 'human being management' and occupational health care. The question of burnout is a complex problem with many interfaces in occupational health care. Both the vision of the internal and the external occupational health care services and the comparison of the treatment of burnout between these services, are covered in this thesis. Finally a study about the cost and effectiveness of a multidisciplinary intervention programme for burnout patients has been incorporated in this thesis.

The above leads to a central research question as follows:

*'What is the relationship between Well-being (Human Being) Management and Occupational Health and what are the effects on process quality of/on Human Being management-based Occupational Health for the treatment of patients with burnout?'*

In the rest of this chapter, the chapters, which follow in this thesis, are briefly outlined.

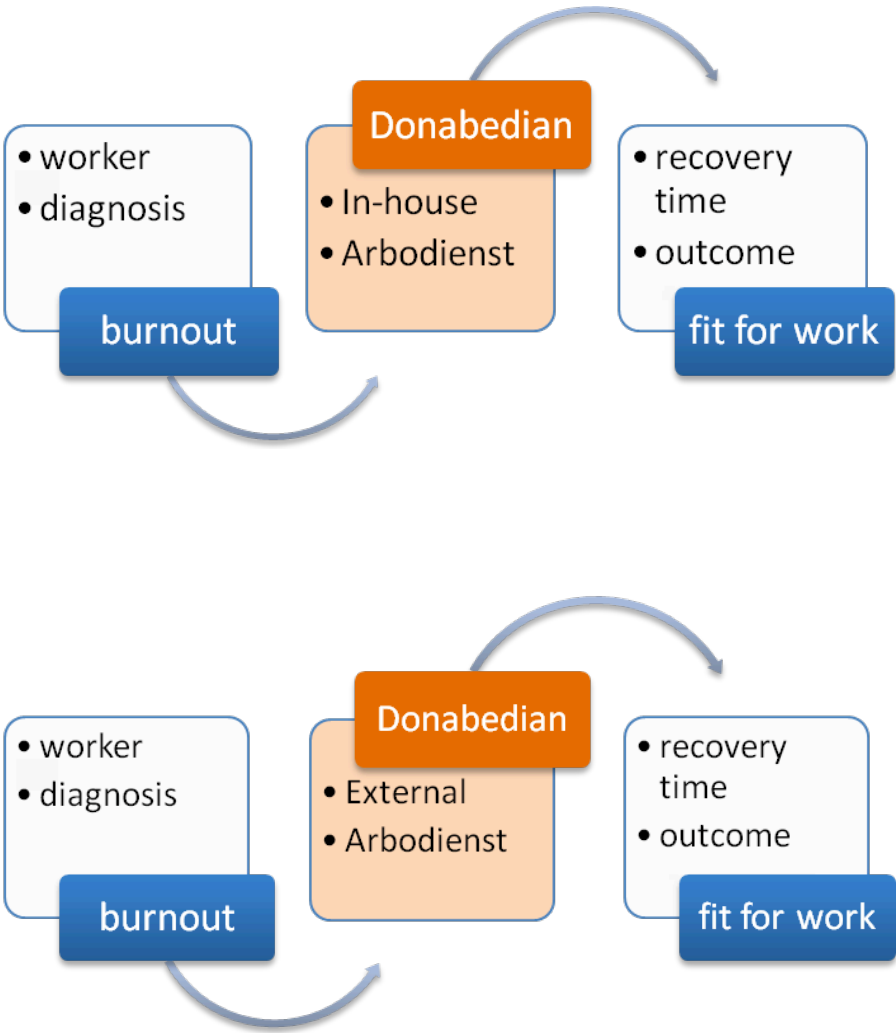
Although the prosperity level in the Netherlands is high in comparison to its neighbouring countries, the quality of the occupational health care in the Netherlands leaves something to be desired. Customer satisfaction regarding the Dutch occupational health care services can be called moderate and far from pro-active. In spite of the notarization of occupational health care, the Netherlands encounters the most work stress, sickness-related absence and incapacity to work in Europe. The fact that in the Netherlands occupational health care is available to all employees is therefore not reflected in the figures for work-related absence and incapacity to work.

Even more remarkable is the fact that, despite the process of commercializing the occupational health care policy in the Netherlands, the quality of the care is deteriorating, which indicates the correctness of medical action. The different occupational health care services do not differ much in regard to 'outcome quality'; there are no differences found in the staff absence figures between internal and external occupational health care services.

However, there is no data available concerning the 'process quality'. A qualitative study into the process quality of both the internal and external occupational health care services in the Netherlands must provide more clarity. For that, the next research question was phrased:

*'What are the differences between in-house and external OHS with respect to the process quality of occupational health care provided?'*

Model - Process Quality in Occupational Health Care



The basis for this study is a theoretical frame based on Donabedian's theory. He classified quality in:

- (1) structure quality, the quality of the setting in which care is granted;
- (2) process quality, quality of the working methods (policy) of the care providers; and

Outcome quality, the quality of the result from the perspective of the clients.

Data concerning outcome quality of the occupational health care in the Netherlands already known, therefore this study especially looked at process quality.

One of the most important components of the quality process is the 'efficacy' of a service provider, the possibility of care to improve the health/well-being of the clients. What is the state of play with the policy and the different working methods of internal and external occupational health care services in the Netherlands?

To examine which components of the internal or external occupational health care services play a role in the process quality, the basis and the aims of the different occupational health care services, as well as policy development and policy improvement, will be discussed in depth. For that purpose, the next qualitative case study has been set up in which four different occupational health care services are described and compared. The aim of the study is:

*'Describe and compare four different ways of managing occupational health care: two kinds of in-house occupational health services (OHS) and two kinds of external OHSs.'*

Occupational health care in the Netherlands is under severe pressure. One wonders why, in such a prosperous country, as the Netherlands, with such tightly organized occupational care, so many **outbursts of employees exists**.

The idea exists that in the Netherlands most organizations still almost exclusively work according to the previously mentioned 'Human Resource Management'. In contrast to 'Human Being Management', in which people are central, here people are considered as capital and they are strategically used by the organization without attention being paid to the possibilities and the capacity of the human factor. At any given moment, people can be so heavily charged that it is no longer possible for them to work and burnout symptoms can develop.

Burnout occurs frequently: 1 in 10 employees show signs of burnout (CBS). The term burnout is used frequently in the media without sufficient attention being paid to the phenomenon itself. The third chapter begins with a short introduction into the phenomenon of burnout, as it is expressed in this thesis.

The next study was developed in order to get a clearer insight into the causes and impact and, from that, also into prevention possibilities and management of burnout complaints in professionals in the health care. Medical professionals have, considering their devotion to people, a larger risk of burnout. The work asks a lot from the care worker, such as time management, keeping up with fast-moving developments in the medical area and infallibility. Moreover, the consequences of burnout directly influence medical work. The personality of the doctor combined with the nature of the profession can ensure serious problems. The next research question concerns a literature review:

*'What are the most important causes, consequences of and solutions for burnout in the medical profession?'*

In the previous chapter a study into the possible differences in the quality process of the internal or external occupational health care services was described. This research deals with the quality process of internal and external occupational health care services at an organization's policy level. There is a possibility that by themselves factors occurring at micro level, such as the choice of therapy or the use of protocols or the contact moments with the occupational health care taker, have a positive influence on people with burnout complaints, and as a result ensure a faster return to the workplace.

Perhaps there are agreements or significant differences present between the internal and external occupational health care services concerning the policy and the treatment of burnout. Earlier research has clearly shown that there are existing differences in the field of outcome quality between an internal and two external occupational health care services.

The expected convalescence duration of burnout patients is almost one and a half time higher at the external occupational health care services than at the internal occupational health care service (Weers). So, to go a step further to find possible differences in the process quality between internal and/or external occupational health care services, the next study was carried out with the research question:

*'The Occupational Health Care services (OHCs) in the Netherlands: What determines the diminishing 'recovery time' factor of burnout?'*

This quantitative study aims at, by means of a specific questionnaire, getting good insight into the trade manner of occupational health care doctors of both internal and external occupational health care services. This makes it possible to see if there really is a difference in the convalescence time of burnout patients considering the intervention which takes place in the two types of occupational health care services in cases of burnout, and which factors of the treatment of burnout patients relate to the convalescence duration in internal and external occupational health care services.

Despite more attention, openness and notion, the phenomenon of burnout is still taboo in the medical world. There are also now more scientific studies appearing in which different solutions concerning stress and burnout are discussed. By applying specific intervention it is possible to reduce the risk of mental problems.

Since burnout is an expression of an identity crisis, the doctor must learn to adjust his ambition and he must gain more insight into his own life (style). Qualitatively good occupational health care is therefore a condition, but his own input is also important. Evaluation by gathering results **can take place by following an intervention in the field of self-management for the medical professional**. Intervention must take place in a multidisciplinary area. The

advantage of this is that a team of specialists can accompany the burnout patient throughout the complete sickness process. A well-prepared team could support and accompany the (future) patient in the early stages, when a minimum of burnout symptoms are present. This could already be a first step in the direction of a preventive burnout treatment.

Another focus is cost-effectiveness analysis. Burnout also has its side effect in the economic area. Entrepreneurs see the influence of the burnout phenomenon in their annual profit figures. Not only does it take a long time before the burnout patient is able to fully work again, it is also often very expensive for the employer. An extra motivation for the employer could be to choose, in addition to the most effective treatment for his employee, a way with the best cost-effectiveness analysis. The next intervention study aimed at examining whether such an intervention programme is indeed effective. Therefore the next objective is phrased:

*'The aim is to illustrate and objectivate the potential of multidisciplinary intervention in reducing the duration of sickness absenteeism in the burnout syndrome.'*

In the Conclusion we answer the central research questions using the results of the studies described here.



## **Literature**

Blot de P., de Chauvigny SJ, Business spiritualiteit als kracht voor organisatievernieuwing, op zoek naar de mystiek van het zakendoen. Universiteit Nyenrode, ISBN 90 7331493-3.

Hudson Report 2006 "Highest figure for employee burnout in Hong Kong reported in Asia". In comprehensive Hudson Report Released for Quarter Two 2006.

Lambert E.G., Cluse-Tolar T and Hogan N.L. This job is killing me, the impact of job characteristics on correctional staff job stress. Understanding burnout

Sanders. L. et al. De patiënt als blinde vlek. Uit: Misschien wisten zij alles 313 verhalen over de eekhoorn en andere dieren, Toon van Tellingen, Querido, 1995 ISBN 9045102552

## **URL's**

<http://www.cbs.nl/NR/rdonlyres/C14006BC-0F2A-42AD-8B35-D499CFEB522D/0/2005k3v4p18art.pdf>

<http://www.depers.nl/binnenland/194270/Meer-huisartsen-met-burn-out.html>

## **Chapter 2**

### **The prevalence and development of Wellbeing Management in Occupational Health since 1996**

## **Chapter 2.1**

### **An assessment of occupational health care in the Netherlands (1996-2005)**

M.M.A. de Valk, C. Oostrom, A.J.P Schrijvers,  
previously published in Occupational Medicine,  
October 2006

## **Abstract**

➤ Background

The extensive Dutch occupational health care system of the past decade has not led to the desired outcomes, namely a decrease of work absenteeism and the associated costs.

➤ Aim

The aim of this study is to assess the differences between in-house and external occupational health care services in the process quality of occupational health care provided.

➤ Methods

26 interviews were conducted with Chief Executive Officers (CEOs) of Occupational Health Services (OHS). The responses and other relevant policy documents were analyzed and described. A key component of this process was to compare differences between in-house and external services.

➤ Results

Notable differences in process quality were found to exist between in-house and external occupational health care systems, with the in-house occupational health care services offering the highest process quality.

➤ Conclusion

Our findings suggest that the effectiveness of occupational health services is mainly dependent on their structure (in-house versus external) and on economic factors (profit-driven versus not-for-profit).

## **Keywords**

Occupational health care

The Netherlands

Process quality of care

In-house and external occupational health care services

## Introduction

In some respects, the Dutch appear to lead the rest of Europe. Since 1996, all Dutch employers have been required to provide certified occupational health care. The provision of occupational health care for all workers can be considered a very progressive step.

In the European Union, worker access to occupational health services (OHS) varies from 15 to 96%, and depends on the country in which employees live and the type and size of organisation they work for.

The Netherlands is not the only country in which the provision of OHS is compulsory. In Belgium, employers are also required to hire the services of a 'certified' in-house or external OHS. Companies in Germany, Finland, and France are not required to appoint a certified OHS, but must provide OHS to their employees.

In other EU countries, the provision of OHS is voluntary. Consequently, the Netherlands has the highest cover of OHS provision for employers: 96% for organisations over 100 employees and 91% for small and medium-sized entities (SMEs). In Sweden, Germany, and the UK approximately 50-60% of the employees have access; these numbers are even lower in Spain and Italy (approximately 15%). In addition, the ratio of occupational physicians to workers in Europe varies substantially between 1 per 3000 (Norway) and 1 per 5000 workers (UK).

For most workers in the Netherlands, occupational health care is supplied by large occupational health monopolies operating from outside the workplace. Just five of these external OHS are responsible for around 80% of all Dutch employees. However, some large organisations have developed their own in-house health care services, just like many large companies in the UK operate some form of OHS. This latter approach is preferred by the European Court of Justice, which has stated that occupational health care should be a primary concern of organisations themselves.

Despite the provision of occupational health care for every employee, the Netherlands has the highest recorded levels of work stress, sickness-related absenteeism, and work-disability in Europe. It has been claimed that the **commercial** approach that most occupational health services have been forced to adopt is partly responsible for a recent deterioration in the process quality of occupational health care. Clearly the comprehensive Dutch occupational health care system has not led to the desired outcomes, namely a reduction of work absenteeism and the associated costs. Therefore, the primary aim of this study is to assess the process quality of the Dutch occupational health care services, with special attention to the differences between in-house and external OHS. Our investigation was conducted using interviews and additional document analysis. The overall research question we asked was:

- *What are the differences between in-house and external OHS with respect to the process quality of occupational health care provided?*

## Method

A sample of 29 OHS was selected from the data bank of Intermedic. This sample represented 12 in-house and 17 external OHS, together responsible for around 85% of the working population in the Netherlands.

A formal letter of introduction was sent to the CEOs (chief executive officers) explaining the background and inviting them to take part in the study. Those who accepted the invitation were sent a postal questionnaire, which was followed up with a structured interview of approximately an hour either in person or by telephone. In addition relevant supplementary material such as policy documents, annual reports and memoranda of association were requested to complement and verify the data collected during the interviews.

We carried out all the interviews using a questionnaire-based interview. The questionnaire consisted of three parts, covering the establishment of the OHS, policy development and policy implementation. The questions were developed based on a previous study assessing the process quality of mental health care in the Netherlands.

In our study we use the framework of Donabedian who conceptualized three 'process quality of care' dimensions.

- *Structure quality* refers largely to the attributes of the settings where the care is delivered.
- *Process quality* refers to whether or not good medical practices are followed.
- *Outcome process quality* refers to the impact of the care on health status.

Only the structure and process quality of care dimensions have been used in this study because occupational health is a heterogeneous good with multidimensional outcomes that are difficult to measure. In addition we did not include the perspective of the clients in our investigation. Therefore, only the first of the seven pillars of process quality 'efficacy' (the ability of care, at its best, to improve health) is considered relevant for the purposes of our study.

For our study we defined ten 'dimensions' or overall indicators: five structural process quality indicators and five process quality indicators. For each indicator we classified each OHS according to a number of pre-defined categories, based on the answers in the interviews and the additional requested documents (see table 1 and table 2). Each of the authors independently classified the 26 OHS under the 10 dimensions. Any contradictions between the two judges were discussed until both eventually agreed on a classification. The process quality indicator for process quality of service was regarded as the primary outcome variable because it relates the primary concern of this study.

Quantitative data were entered into the computer application 'Statistics Package for Social Scientists for Windows 11.0' (SPSS). Frequencies were calculated for the ten indicators of process quality, distinguishing between in-house and external OHS (table 3 and 4). As the study was descriptive in nature no statistical analysis was carried out on the data.



## Results

26 (12 in-house and 14 external) OHS eventually participated in our study, including all the five large external OHS, giving a response rate of 90%. These 26 services are responsible for the occupational health care of around 80% of the working population in the Netherlands (9).

**Table 1 The structure quality indicators**

Structure process quality indicators	Categories
(i) Branch - area of operation:	<ul style="list-style-type: none"><li>○ Agriculture, construction or industry</li><li>○ Commercial services, trade or transportation</li><li>○ Health care, education or public authorities</li><li>○ No specialization, general</li></ul>
(ii) Size of clients:	<ul style="list-style-type: none"><li>○ SMEs</li><li>○ Both SMEs and large enterprises</li><li>○ Large enterprises</li></ul>
(iii) Motivation:	<ul style="list-style-type: none"><li>○ Value driven</li><li>○ Money driven</li></ul>
(iv) Commercial stance of client group:	<ul style="list-style-type: none"><li>○ Non-profit</li><li>○ Profit</li></ul>
(v) Focus upon employee vs. employer:	<ul style="list-style-type: none"><li>○ Focus upon employee</li><li>○ Focus upon employer</li><li>○ Focus upon both</li></ul>

**Table 2 The process quality indicators**

Process quality indicators	Categories
(i) Process quality of services:	<ul style="list-style-type: none"><li>○ Focus upon administrative processes</li><li>○ Focus upon availability and financial costs: extra value</li><li>○ Focus upon advice in the primary processes</li></ul>
(ii) Type of service:	<ul style="list-style-type: none"><li>○ A co-operative formula</li><li>○ Standard custom made goods</li><li>○ Full service packages</li></ul>
(iii) Reactive or pro-active activities:	<ul style="list-style-type: none"><li>○ Reactive: focus upon sick leave</li><li>○ Pro-active: focus upon prevention issues</li></ul>
(iv) Driven by supply or demand:	<ul style="list-style-type: none"><li>○ Demand</li><li>○ Supply</li></ul>
(v) Degree of intervention:	<ul style="list-style-type: none"><li>○ Facilitating</li><li>○ Unasked advising</li><li>○ Directing</li><li>○ Innovating</li></ul>

There were considerable differences in the management of occupational care between the in-house and external OHS. The structure process quality indicators (table 3) highlighted a number of interesting features of the market. First, only large enterprises operate an 'in-house' OHS: none of the in-house services provided services to SMEs. Second, the in-house OHS are almost always value driven (92%), whilst external OHS are more often money driven (64%). A third finding is that in-house OHS are frequently linked to not-for-profit organisations (67%), while external services cater mainly for a commercial clientele (79%). Fourth, a large majority of the in-house OHS considers employees their clients (83%). In contrast, 57% of the external OHS see the employer as their main customer.

**Table 3 The distribution of the occupational health care services: structure process quality indicators**

<b>Structure process quality indicators</b>	<b>In-house (n = 12)</b>	<b>External (n = 14)</b>	<b>Total (n = 26)</b>
<i>(i) Branch</i>			
Agriculture, construction and industry	2 (17%)	4 (29%)	6 (23%)
Commercial services, trade and transportation	3 (25%)	1 (7%)	4 (15%)
Health care, education and public authorities	7 (58%)	3 (21%)	11 (39%)
No specialization, general	0 (0%)	6 (43%)	6 (23%)
<i>(ii) Size of clients:</i>			
SMEs	0 (0%)	5 (36%)	5 (19%)
Both	0 (0%)	5 (36%)	5 (19%)
Large enterprises	12 (100%)	4 (29%)	16 (62%)
<i>(iii) Motivation:</i>			
Value driven	11 (92 %)	5 (36%)	16 (62%)
Money driven	1 (8%)	9 (64%)	10 (38%)
<i>(iv) Commercial stance of client group:</i>			
Profit	4 (33%)	11(79%)	15 (58%)
Non-profit	8 (67%)	3 (21%)	11 (42%)
<i>(v) Focus upon employee v employer:</i>			
Employee	10 (83%)	3 (21%)	13 (50%)
Employer	0 (0%)	8 (57%)	8 (31%)
Both	2 (17%)	3 (21%)	5 (19%)

In addition, the results for process quality indicators (table 4) displayed a number of interesting differences between in-house and external OHS. First, the majority of the in-house OHS (83%) were found to focus on 'advice' (consultancy on health issues) as their primary process quality of service objective, compared to 43% of the external OHS, who more often focus upon staff availability and financial costs (50%).

Second, all in-house OHS offer comprehensive service packages to their clients. External OHS generally offer a more limited service to their clients.

Third, in-house OHS are more oriented towards preventative measures, i.e. they are more pro-active in their activities (75%) than external services (only 43%). Sickness absence consultation, a reactive measure, is more often the priority for external providers.

Last, almost all external OHS act mainly as facilitators (79%) and only make interventions when asked to do so by the organisations. In-house OHS have a broader scope of operation and are better integrated into the organisations they work with. They are more prepared to intervene earlier in the occupational health processes.

**Table 4 The distribution of the occupational health care services: process quality indicators**

Process quality indicators	In-house (n = 12)	External (n = 14)	Total (n = 26)
<i>(i) Process quality of service:</i>			
1. Administrative processes	0 (0%)	1 (7%)	1 (4%)
2. Extra value	2 (17%)	7 (50%)	9 (35%)
3. Advice	10 (83%)	6 (43%)	16 (62%)
<i>(ii) Type of service:</i>			
a co-operative formula	0 (0%)	6 (43%)	6 (23%)
standard custom made goods	0 (0%)	3 (21%)	3 (12%)
full service packages	12 (100%)	5 (36%)	17 (65%)

<i>(iii) Pro-active vs. reactive:</i>			
Pro-active (prevention)	9 (75%)	6 (43%)	15 (58%)
Reactive (sick leave)	3 (25%)	8 (57%)	11 (42%)
<i>(iv) Supply vs. demand driven:</i>			
Demand driven	8 (67%)	7 (50%)	15 (58%)
Supply driven	4 (33%)	7 (50%)	11 (42%)
<i>(v) Degree of intervention</i>			
Facilitating	4 (33%)	11 (79%)	15 (58%)
Unsolicited advising	4 (33%)	2 (14 %)	6 (23%)
Directing	3 (25%)	0 (0%)	3 (12%)
Innovating	1 (8%)	1 (7%)	2 (8%)

## Discussion

This descriptive study sought to evaluate the process quality of in-house and external OHS in the Netherlands. CEOs of both types of OHS participated through a questionnaire-based interview and the provision of additional policy documents.

All the 26 OHS that participated are accredited every 5 years under a quality system similar to ISO 9001. Consequently, all OHS achieve a basic level of process quality as required for their certification. However, as our findings demonstrate, there is significant variety in process quality, especially between in-house and external OHS.

We have defined process quality in terms of efficacy: the ability of care, at its best, to improve health and have looked at structure and process quality indicators of care. This ability is highest when OHS are able to practice appropriate measures that fulfill the specific needs of their clients. When this definition is used, in-house OHS appear to achieve the highest process quality. They are more integrated into the organisations they work for, provide generally the most extensive type of service, are more oriented towards preventive measures and have a broader scope of operation.

The structure and working methods of in-house OHS are best suited to improve the health of the organisations they work for, thus are better in terms of efficacy. External OHS, on the other hand, operate from outside the organisation, provide less comprehensive service packages to their clients, usually employ reactive measures and concentrate on making a profit. Therefore, their structure and modes of operation are less suited to providing that highest process quality of care.

Unfortunately, limited scientific research has concentrated on the process quality of occupational care in the Netherlands. A few studies have focused on outcome process quality indicators of care, for example sickness absence rates, numbers of disability benefit recipients, or client satisfaction ratings. These examinations yielded similar results to ours, pointing into the direction of a higher outcome process quality for in-house OHS.

Our study is the first to assess the Dutch occupational health care system in terms of structure and process quality. This is the most important strength of our study. In Finland, another European country with compulsory occupational health care provision and different OHS models in use, researchers also found a great variation in both input and output indicators. These findings are similar to those of our study although we performed a more sophisticated and in-depth examination of the quality of care.

A possible weakness of our study in relation to others is that we did not assess outcome process quality indicators, such as the satisfaction ratings of clients. We only questioned the CEOs and not other stakeholders involved in this process.

Occupational health care legislation in the Netherlands has created an opportunity for OHS to become commercial organisations. The Netherlands is not the only EU country in which some OHS make a profit, in the UK for example there are a number of OHS that are profit making. However, it is exceptional that more than 85 per cent of the working population receives occupational health care from commercial services.

Nicholson (2002) suggested that simply making access to occupational health a legal obligation is not sufficient for improving employee health, which can only be achieved as a part of a wider strategy for health improvement.

It seems that the Dutch government had overlooked this condition, as is illustrated by its failure to introduce additional measures to improve occupational health care. Thus far the only stakeholders who have taken advantage of this obligation are the (large) external OHS.

In July 2005, the Dutch government acknowledged the unintended consequences of its actions and discarded the legal obligation to use a certified OHS. The outcome of this latest measure is not yet clear, but the large external OHS in particular are expected to lose business given the low satisfaction ratings given by their clients. This could be an interesting subject for future research.

In addition, the outcome quality of occupational health care needs to be assessed through the questioning of other stakeholders than the CEOs.

### **Acknowledgements**

The authors thank Paul Doxey MA, FCA, CFE for his language assistance as a native English speaker.

## **Summary**

In the past decade the extensive Dutch occupational health care system has not led to the desired outcomes, namely a decrease of work absenteeism and the associated costs and this study tried to assess the differences between in-house and external occupational health care services in the process quality of occupational health care provided, with the outcome that there are notable differences between the two. This suggests a difference in effectiveness based on the structure and economic factors with an advantage for the in-house health centers in offering the highest process quality.

## **Statement**

To improve the procesquality of the occupational health care, the in-house corporate occupational health care services seem to be more aware of implementing quality systems than the external occupational health care services.



## Literature

- Donabedian, A. The quality of care. How can it be assessed? *J Am Med Assoc* 1988; 260; 1743–1748.
- Donabedian, A. The seven pillars of quality *Arch Pathol Lab Med* 1990; 114; 1115-1118.
- Karaian, J. Sick of it: European companies can find plenty of cost savings if they address burgeoning absenteeism problem. *CFO Europe Magazine*. 2003.
- Miller, P, Rossiter, P, & Nuttal, D. Demonstrating the economic value of occupational health services. *Occup Med*. 2002; 52; 477-483.
- Nicholson PJ. Occupational health in the European Union. *Occup Med*. 2002; 2; 80-84.
- Nicholson PJ. Occupational health services in the UK-challenges and opportunities. *Occup Med*. 2004; 54; 147-152.
- Rasanen, K, Husman, K, Peurula, M, Kankaanpaa, E. The performance follow-up of Finnish occupational health services. *International Journal for Quality in Health Care* 1996; 9: 289-295.
- Ravelli, DP. Deinstitutionalisation of mental health care in the Netherlands from 1993-2004. Nieuwegein: Budde Elinkwijk grafische producties; 2004.
- Social and Economic Council of the Netherlands (SER). Advice no. 04/03: Occupational Health Care Provision of Services. Appendix 4: Analysis Occupational Health Care Provision of Services 2004.
- Statistics Netherlands (CBS). Statistics Occupational health services and occupational health advice agencies. Voorburg; 2003.
- Weel, ANH, van der Beek, AJ, Kroon, PJ, Verbeek, JHAM, & van Dijk, FJH. Recent changes in occupational medicine in the Netherlands. *Int Arch Occup Environ Health*. 1999; 72; 285-291.

## Appendix A: The Questionnaire

### Investigation

An assessment of occupational healthcare in The Netherlands.

### CEO questionnaire

#### Part 1. Establishment of the OHS

- 1.1. How was the OHS established?
- 1.2. Which parties were *directly* involved in the establishment of the OHS?
- 1.3. What were the motives for the establishment of the *directly* involved parties?
- 1.4. What media were used by the *directly* involved parties in discussing the establishment of the OHS?
- 1.5. Which parties were *indirectly* involved in the establishment of the OHS?
- 1.6. What were the motives of the *indirectly* involved parties in establishing the OHS?
- 1.7. What media were used by the *indirectly* involved parties in discussing the establishment of the OHS?

#### Part 2. Policy Development

- 2.1. What were the policy developments?
- 2.2. Which parties were *directly* involved in policy development?
- 2.3. What were the motives of the *directly* involved parties in relation to policy development?
- 2.4. What media were used by the *directly* involved parties in discussing policy development?
- 2.5. Which parties were *indirectly* involved in policy development?
- 2.6. What were the motives of the *indirectly* involved parties in relation to policy development?

2.7. What media were used by the *indirectly* involved parties in discussing policy development?

### Part 3. The Policy Implementation

3.1. How was the policy implemented?

3.2. Which parties were *directly* involved in policy implementation?

3.3. What were the motives of the *directly* involved parties in relation to policy implementation?

3.4. What media were used by the *directly* involved parties in discussing policy implementation?

3.5. Which parties were *indirectly* involved in policy implementation?

3.6. What were the motives of the *indirectly* involved parties in relation to policy implementation?

3.7. What media were used by the *indirectly* involved parties in discussing policy implementation?

## **Chapter 2.2**

### **External and in-house occupational health services in the Netherlands: a qualitative study of four cases.**

M.M.A. de Valk and C. Oostrom,  
previously published in Nederlands Militair Geneeskundig Tijdschrift,  
January, 2007

## **Abstract**

### ➤ Aims

In the Netherlands, all businesses have been required to provide certified occupational health care to their employees. The aim of this study is to describe and compare four different ways of managing occupational health care: two kinds of in-house occupational health services (OHS) and two kinds of external OHSs.

### ➤ Method

A multiple case study design was selected with two different sources of evidence: interviews with the CEOs of the OHS and policy documents (e.g. annual reports and memoranda of association).

### ➤ Results

The process quality differed in the four cases that were assessed. The two in-house services offered the highest process quality of service. The processes behind these results are described.

### ➤ Conclusions

The Dutch system is one of the most extensive in the world, although the government measures don't seem to have any effect on the process quality of occupational care. Other methods of process quality surveillance should be developed and these methods should be more focused on the experiences and wishes of the consumer.

## **Keywords**

Occupational Health Services (OHS)

The Netherlands

Organizational Case Studies

In-house Occupational Health Services

External Occupational Health Services

## **Introduction and Background**

In the last decade, there have been important developments in Occupational Health Care arrangements in the Netherlands. Since 1998, every Dutch enterprise has been required to be affiliated to an independent certified occupational health care service (OHS). In addition, each enterprise must be supported by this OHS in its activities for improvement of working conditions, and assisting employees who are absent from work. The Netherlands is one of the few countries in the European Union in which the provision of occupational care is compulsory; the others are Belgium, France, Finland and Germany. Consequently, occupational health care access for workers ranges from approximately 15% in Spain and Italy to 96% in the Netherlands.

In the last ten years, there have been two main approaches for managing occupational health care in the Netherlands:

- (a) OHS may be provided as an in-house service, or
- (b) companies hire an external OHS to manage the obliged activities.

From 1994 to 1998, the government carried out the certification and recognition of OHSs. The Dutch government did not stipulate a preference for either approach in the legislation. However, managing an in-house OHS is financially impossible for most small and medium enterprises (SMEs) due to the high costs. Consequently, most Dutch workers receive occupational health care from large external services operating from outside the workplace.

The majority of the working population (about 77%) is covered by the five large external services, such as 'ArboNed' and 'Commit'. Only a few medium and large enterprises have developed their own in-house service.

This development contrasts with a verdict of the European Court of Justice in 2003, which required that occupational health care should primarily be managed by in-house services. From the start the occupational health care for The Royal Air force, The Royal Army and The Royal Navy, has been supplied by three independent, certified in-house services.

Since 1998, certification has been carried out by private certifying institutions following a quality system similar to ISO 9001. Recent research into how OHS, employers, employees, insurance companies, and others judge this certification procedure found that the current method of certification is inadequate for improving process quality. Partly under pressure by the verdict of the European Court of Justice and the research referred to above the government removed the obligation to hire a certified OHS from 1 July 2005.

De Valk and Oostrom assessed the quality and effectiveness of occupational health care in the Netherlands, with special attention to the differences between the in-house and external OHSs. One of the main conclusions of their research was the higher process quality of the in-house services. They found out that in-house services concentrated on preventive measures, focused on long-term improvements and were more integrated into the organisations they work for.

External services, on the other hand, concentrated more on sickness absence issues. They spend less time on periodic health examinations, workplace surveys and recommendations regarding work organization and working conditions, compared to the in-house services. De Valk and Oostrom used a quantitative research method in their research.

It is interesting to take a further and deeper look at the establishment, policy development, and policy implementation of four different OHS and in particular the basis and motives behind these activities, using the more qualitative research method of a case study. This helps us improve our understanding of the development of organizational health care services over the past decade.

## **Method**

### The sample

We chose to describe and compare the establishment, policy development and policy implementation of four different kinds of health care services.

These four OHS work in different quadrants of the market for occupational health care.

The first service (OHS A) is one of the five large external services that have dominated the market for the last couple of years. The second organizational health care service is also an external service (OHS B), but is small, concentrating their business on only a few enterprises and acting more regionally. The third and fourth organizational health care services are both in-house services: The OHS of a non-profit public organisation (OHS C) and the OHS of the Dutch operations of an international enterprise (OHS D).



A graphic representation of these four quadrants can be found in figure 1.

Large	OHS C	OHS A
Small	OHS D	OHS B
	In-house	External

**Figure 1. The four quadrants of the market for occupational health care**

We have selected these four OHS for several reasons. First, the same private certifying institution, namely Det Norske Veritas, has carried out the certification of all four OHS. Therefore, the basic process quality systems are not expected to differ between the four OHS and cannot bias our investigation. Second, the CEOs with who we conducted the interviews were also the founders of these OHS. Consequently, they all are well informed about the development of their OHS since the foundation. Third, all four OHS completely participated with our research, meaning that they provided all the requested documents and fully co-operated during the interview.

#### The procedure

This study was part of a larger examination of the Dutch occupational health care system in which open-ended interviews were conducted with CEOs of 26 OHS. In addition, relevant supplementary material (e.g. policy documents, annual reports, memoranda of association) was requested to complement and verify the answers given in the interviews. In this present study we have used the data for only four of these OHS.

## The design

A case study design was selected because we wanted to assess the deeper underlying motives of the occupational health care services. When 'how' and 'why' question are posed, when the researchers have no control over the behavioural events, and when the focus is on contemporary phenomena, case studies are the preferred strategy.

The unique strength of case studies is their ability to deal with a full variety of evidence: in this study we analyze interviews and policy documents. The use of multiple sources of evidence has been shown to increase the construct validity of case studies. This study can be considered a 'comparative' (or multiple-case) study in which four different OHS (cases) are being analyzed and compared.

As general analytic strategy we chose to develop a descriptive framework for organizing our case study. The structure and classification that were adopted in the interview (the establishment, policy development, policy implementation) have been used to describe and organize the information in the case studies.

## The Questionnaire

The first author (De Valk) carried out all questionnaire-based interviews. The questionnaire consisted of three parts, covering the establishment of the service, policy development, and policy implementation (Table 1). In each part six questions were asked. In the first part we especially wanted to know how, why, and by who the OHS has been founded. In the second part we wanted to find out what the policy development was after the foundation and why this policy was developed. In the third part we asked about what measures have been taken to implement the developed policy and 'why' and 'how' this was done.

**Table 1. The open-ended interview questions**

<b>Part 1. The establishment of the OHS</b>	
1.1	How was the OHS established?
1.2	Which parties were <i>directly</i> involved in the establishment of the OHS?
1.3	What were the motives of the <i>directly</i> involved parties for the establishment?
1.4	What media were used by the <i>directly</i> involved parties in discussing the establishment of the OHS?
1.5	Which parties were <i>indirectly</i> involved in the establishment of the OHS?
1.6	What were the motives of the <i>indirectly</i> involved parties in establishing the OHS?
1.7	What media were used by the <i>indirectly</i> involved parties in discussing the establishment of the OHS?
<b>Part 2. Policy development</b>	
2.1	What were the policy developments?
2.2	Which parties were <i>directly</i> involved in policy development?
2.3	What were the motives of the <i>directly</i> involved parties in relation to policy development?
2.4	What media were used by the <i>directly</i> involved parties in discussing policy development of the OHS?
2.5	Which parties were <i>indirectly</i> involved in policy development?
2.6	What were the motives of the <i>indirectly</i> involved parties in relation to policy development?
2.7	What media were used by the <i>indirectly</i> involved parties in discussing policy development?
<b>Part 3. Policy implementation</b>	
3.1	How was the policy implemented?
3.2	Which parties were <i>directly</i> involved in policy implementation?
3.3	What were the motives of the <i>directly</i> involved parties in relation to policy implementation?
3.4	What media were used by the <i>directly</i> involved parties in discussing policy implementation?
3.5	Which parties were <i>indirectly</i> involved in policy implementation?
3.6	What were the motives of the <i>indirectly</i> involved parties in relation to policy implementation?
3.7	What media were used by the <i>indirectly</i> involved parties in discussing policy implementation?

## Results

In this section we describe and compare three aspects of the four organizational health care services reflecting the three parts of the questionnaire: the establishment of the service, policy development, policy implementation. The full descriptions given in the answers to the questionnaire are very long and extensive; therefore, in this article we only provide selected abstracts in our comparison of the four OHS. This is done in the form of quotes. The complete vignettes can be found on [www.intermedic.nl](http://www.intermedic.nl).

In addition, table 2 gives an overview of the classification of the four OHS on 10 process quality indicators; this classification is adopted from our previous investigation.

### The comparison

The first three questions in each of the three parts of the questionnaire are the most important for this investigation. These cover:

- (i) **describing the establishment of the service, policy development and policy implementation;**
- (ii) **the (direct) actors involved; and**
- (iii) **the underlying motives. It is interesting to compare the answers to these questions for the four OHS studied.**

### The establishment of the service

(i) A remarkable aspect of the foundation of these OHSs is that the two in-house services were founded from already existing structures in the organisation:

OHS C: *'The foundation was the continuation of already available occupational health care facilities'*

OHS D: *'The in-house occupational health care service has been founded from an already existing Health Care Service in 1994'*

OHS A was established through the purchase of other services together with integration with a large insurance company: *'Later on OHS A bought up some small malfunctioning occupational health care services',*  
*'Simultaneously with this development was a merger with a large national insurance company'*

OHS B was created because the two founders wanted to work for themselves: *'The legal form was a private company with two occupational physicians as shareholders'*

(ii) The actors involved in establishing the services differed notably between the in-house and external services. In the latter these were primarily the shareholders of the companies:

OHS A: *'Two large share holders, a large national bank, and 15 other smaller shareholders were directly involved with the foundation'*

OHS B *'The two shareholders were the only two individuals directly involved with the development'*.

The foundation of the two in-house services was a more social process in which many different actors participated:

OHS C *'The personnel department, the board of directors, the head of the service, and the works council were the principal players in the foundation'*

OHS D: *'The specific project group, the commanding officer, the decentralized employers, and the participation advisory body all participated in the establishment process'*.

(iii) The four OHSs had various motives for their establishment. The founders of OHS A were concerned with the opportunities in the market and possible economic benefits: *'the main motives of the actors were: enterprising spirit, faith in the market, and experience with buying up companies'* (OHS A).

The two shareholders of OHS B principally wanted to be independent to disseminate their own beliefs: *'we wanted to become more independent of the organisations we had worked for and wanted to operate more in line with our own beliefs'* (OHS B). OHS C had both idealistic and economic motives for the establishment of an internal OHS: *'a better and more direct procedure for health related services and the anticipated costs'*, *'ergonomics always was and will be an important factor'* (OHS C).

The motives of the OHS D were mainly idealistic: *'Corporate safety, the environment, and independence played an important role in the establishment'*, *'other important motives were: conformation to the occupational health law, preservation of the existing Health Service Structure, and the extension of professionals in the service'* (OHS D).

**Table 2. Classification of the four OHS on 10 process quality indicators  
(adopted from De Valk et al., 2006)**

Quality indicators	OHS A	OHS B	OHS C	OHS D
(i) Branch – area of operation	no specialization, general	healthcare, education or public authorities	commercial services, trade or transportation	healthcare, education or public authorities
(ii) Size of clients	SMEs	large enterprises	large enterprise	large enterprise
(iii) Motivation	money driven	value driven	value driven	value driven
(iv) Commercial stance of client group	profit	non-profit	profit	non profit
(v) Focus upon employee vs. employer	employer	employer	both	employee
(vi) Process quality of service	administrative processes	availability and financial costs; extra value	availability and financial costs; extra value	advice in primary processes
(vii) Type of service	standard custom made goods	a co-operative formula	full service packages	full service packages
(viii) Reactive or pro-active activities	reactive; sick leave management	reactive; sick leave management	pro-active; preventive issues	pro-active; preventive issues
(ix) Driven by supply or demand	supply	demand	demand	demand
(x) Degree of intervention	facilitating	facilitating	facilitating	facilitating



## Policy development after foundation of the service

OHS A, in particular included cost saving measures in their policy development, because of the weak market conditions: *'The occupational health care services are in a difficult position these days', 'The goal is a positive trading result, and therefore it is important to accomplish quality and efficiency successes', 'focusing upon continued existence, following the rules, growing in the field, and expanding the successful activities'* (OHS A).

The goal of policy development for OHS B was more focused on the organisations they worked for: *'with eventually as result a more effective and durable healthy functioning of employees and organisation', 'an important point in the planning for 2005 was to further professionalize the organisation, in the way of improved implementation of procedures'* (OHS B).

Both in-house OHS were guided first by the certification procedure in developing their policy: *'The beginning of this process has been characterized by a focus on the certification procedure'* (OHS C), *'Det Norske Veritas accomplishes periodical audits to maintain our certification as an occupational health care service', 'these audits provide input for quality drives to continuously improve the organisation'* (OHS D).

Another important point in this process was prevention: *'The emphasis moved from reactive to more preventive measures interacting with the clients during the last couple of years'* (OHS C), *'Awareness of the risks to early detection of work-related problems is crucial for a competent care-giver'* (OHS D).

In all four OHS's the parties involved in policy development were primarily the professionals accompanied by the management, the customers, or other actors: *'professionals in this field and the management team'* (OHS A), *'The two CEOs, the customers, and the works council were directly involved with policy development'* (OHS B),

*'The professionals, the customer (works council), and other in-house occupational health care services were directly involved with policy development'* (OHS C), *'The professionals, the head of the occupational health care service, and the management team directly influenced policy development'* (OHS D).

Improving the image of the OHS and economical factors were important motives for the parties involved in policy development of OHS A and OHS C: *'Another motive was to regain trust and being good doctors and professionals'*, *'Internally, OHS A is focused upon running a profitable company'* (OHS A),

*'Improving the image, awareness of the costs of occupational health care, and healthy lifestyle promotion are the principal motives behind policy development'* (OHS C).

The policy developers of OHS B and D were more concerned about providing good care for their customers: *'Customer directed services and the implementation of prevention were the most important motives for developing policy'* (OHS B), *'Provide excellent care to employees'*, *'Care as needed and not the costs are the central motives of the occupational health care service'* (OHS D).

## Policy implementation

OHS A was the only OHS which reported implementation problems that influenced the quality of their services: *'the accompanying implementation problems have led to a decrease in process quality-improving activities, such as meetings, interventions, content coaching of advisers and evaluating annual reports'* (OHS A).

However, OHS A made attempts to become more pro-active: *'but OHS A is becoming more pro-active. New products have been developed, consultancy activities have been expanded, and a new sales department has been founded'* (OHS A).

The policy implementation of the other three OHS's was based on improving the quality of their work. The most important aspects were: *'Central in this implementation have been: a good task division, the responsibility of the employer, and avoiding exceptions to the 'Work & Organisation' policy', 'Screening is another central point in policy implementation'* (OHS B),

*'The efficient organisation of working processes', 'The policy became more pro active and 'visible', 'The regular measurement of customer satisfaction to improve the service and care'* (OHS C),

*'The implementation of new systems and the improvement of existing systems have been accomplished to increase the exchange of information and to prevent duplication of effort'* (OHS D).

Again, the professionals and other experts in the field were the main contributors to the implementation process in all four OHSs: *'Experts in the field (including the two CEOs)'* (OHS B), *'the professionals, the managers,*

*and the head of the department are the main contributors to policy implementation'* (OHS C).

*'The professionals, the industrial and organizational nurses, and the staff members all contributed to policy implementation'* (OHS D).

OHS A explicitly mentioned that the opinion of the customers became less important: *'the professionals themselves and the large national insurance company are the main parties in this implementation process. The opinion of the customer is becoming less important'* (OHS A). The motives behind policy implementation were very different. The motives of OHS A were of the organizational kind: *'Provision of services by good professionals; a human business demands such an approach'* (OHS A).

OHS B wanted to be a professional and unique service: *'Professional principles, pragmatic approach, and the ability to differentiate'* (OHS B).

The motives of OHS C were twofold, idealistic and economical: *'The reduction of sickness absence and financial savings were their main motives'* (OHS C).

The in-house OHS of the public sector just wanted to give the best care possible to their employees: *'Providing first class care for their employees'* (OHS D).

## Discussion

The purpose of this article was to compare four Dutch Occupational Health Services, all working in a different quadrant in the occupational health care market, and to determine which approach was the most successful. Two external and two in-house OHS participated in this study. The most important aspects of this research were describing and comparing the foundation of services, policy development, and policy implementation, to answer questions like “how?” and “why?”. Our research was done on the basis of a structured interview and relevant policy documents.

The greatest differences were found between the two external OHSs (especially OHS A) and the two in-house OHSs. These differences could be seen from the initial establishment of the services. The two in-house OHSs were founded because the sponsoring organisation already recognised the importance of an in-house prevention service. OHS C and the OHS D developed their OHSs from comparable structures available in their organisation.

The motives for this development principally reflected concern for the wellbeing of their employees. The foundation of OHS A in particular was based on economic motives. Its foundation was characterised by the acquisition of other companies, integration with an insurance company, and a large media campaign and it was carried out exclusively by shareholders. OHS B (the small external service), was founded by two experienced, motivated and independent occupational physicians, and had more idealistic motives.

Apparently, the two external OHSs were founded because the market for occupational health care was growing as a result of the new legislation. This legislation was also an important factor in the foundation of the two in-house

services, but in their case, they simply had to adjust an already existing health service within their organisation to the legal requirements.

Preventative measures characterised the policy development of the in-house OHSs, although, the in-house OHS C also mentioned awareness of the costs of occupational health care as an important motive for their policy development. The founders of OHS B focused their policy development upon its clients. They wanted to accomplish a more effective and healthy functioning of employees and organisations.

The policy development of these three OHSs contrasted with the policy development of OHS A (the large external service). The goal of OHS A was to reduce the costs through accomplishing process quality and efficiency improvements, focussing upon survival and growth. The most notable findings concerning policy implementation were the implementation problems of OHS A and again the contrast with the other three OHSs. OHS A reported implementation problems that affected the process quality of its work. The policy implementation of OHSs B, C and D more or less have focused on improving the process quality of their services, although the motivations differed. OHS B wanted to be a professional and unique service, OHS C wanted both a healthy work force and a reduction of the costs, and OHS D wanted the best care possible for its employees.

The differences between the OHS on the foundation, policy development and implementation are reflected in the process quality indicators that were adopted from our previous study (table 2). OHS A was the only money driven organisation of the four.

Furthermore, it offered the lowest quality of service (administrative processes), provided standard custom made goods, was driven by supply and acted more reactive (sick leave management) OHS B and OHS C had a higher quality of service, namely the focus upon availability and financial costs. OHS B was more co-operative with their clients to discuss their service, however they were still reactive in their activities. The two in-house OHS services provided full service packages, were more pro-active (prevention) in their activities and OHS D had the highest process quality of service; they focuses upon advice in the primary organizational processes. More insight on these outcomes can be found in the original article.

Although, these findings do not seem surprising considering the quadrant of the market they work in, we are the first to conduct a scientific investigation into the quality of the Dutch OHS other than the usual customer satisfaction ratings. OHS A, a large bureaucratic external OHS aims to make a profit to ensure its survival and growth as a business.

However the market for occupational health care is shrinking and competition between the five large OHSs in this quadrant is intense. Consequently, cutting costs became its primary concern in order to survive the challenging times.

The founders of OHS B first worked for other OHSs but wanted to disseminate their own values. It must provide high process quality and unique services to differentiate itself in a crowded market. The main motives are idealistic but like every commercial business it must make a profit to survive.

OHS C is part of an international enterprise with operations in many countries. The motive for choosing an in-house OHS was that it was considered that this was the best way to manage occupational health care. In addition, they did not need to hire an expensive external OHS. OHS C, therefore, wanted excellent care for its employees but recognized the financial costs.

The in-house OHS D was primarily concerned with the well being of its employees. 'Care as needed' and not costs was its principal motive. The OHS was not required to make a profit for its sponsoring organisation.

Unfortunately, there are few other studies on this topic to compare our findings with. Little scientific research has been done concerning the process quality of occupational health care services in the Netherlands.

In Finland, another EU country in which the provision of occupational health care is compulsory, there is also a great variation in the process quality of the OHSs (structure, input indicators, and output indicators) that not fully can be explained by the different needs and contents of the services.

There are up to five models of OHS in use in Finland; the municipal health centre model, the company's in-plant service (integrated model), group service of several small and medium-sized enterprises (joint model), regional service units of the state (with similar structure to that of group service), and the private medical centers. These findings and ours demonstrate that making occupational health care access a legal obligation, as a solitary action not necessary results in improved process quality.



Admittedly this investigation has certain limitation. These limitations are not unusual in qualitative research methods. First, the responses in the interviews were to some degree subjective, despite the experience of the respondents and their motivation to be objective.

Second, the analysis between the two external OHS and two in-house OHS is complicated since they are scientifically comparable. Therefore, the methodology in this study was based on a semi structured interview as well as an analysis of several relevant policy documents. Ideally, a scientific analysis should also include other measures such as customer satisfaction ratings and an examination of financial recourses to overcome this problem.

Finally, we only assessed four OHSs that were characterized as falling within the four quadrants of the Dutch occupational health care market. Although it may seem that our findings can be generalized to the other OHSs in the market, our findings only describe the four assessed OHSs.

For the future, we recommend the development of other methods for surveillance of the quality process of OHS based upon our approach. These methods should incorporate besides process quality indicators, the point of view of the consumers of these services, the customers (businesses) and the patients. Furthermore to do research one can start with examining the cross-functional customer experience that can be used to analyze feedback from the field as well as for development of new (preventative) products focusing on the consumers.

### **Acknowledgements**

The authors thank Paul Doxey MA, FCA, CFE for his language assistance as a native English speaker.

## **Summary**

The Dutch occupational health care system is one of the most extensive in the world. Four health care services were compared by a multiple case study in order to describe four different ways in the management of occupational health care; two kinds of in-house occupational services (OHS) and two kinds of external OHSs. Interviews with CEO's and policy documents were analyzed. The analysis described, showed a result in process quality differences, with the in-house services offering a higher process quality of service. Thus, with the extensive health care system in the Netherlands and the low impact of government measures, process quality systems should be developed, making the experiences and wishes of the consumer important focus points.

## **Statement**

Customer value and the quality of wellbeing of the client and organisation should be major topic in occupational health care.

## Literature

Black, N. Why we need observational studies to evaluate the effectiveness of health care. *BMJ Journals* 1996: 312; 1215-1218.

Lijphart, A. The comparable-cases strategy in comparative research.

*Comparative Political Studies* 1975: 8; 158-177.

Labour Condition Regulation 1998. The Netherlands

Marcelissen, FH, & Weel, AN. Certification and quality assurance in Dutch occupational health services. In *J Occup Med Environ Health* 2002: 15; 173-177.

Nicholson PJ. Occupational health in the European Union. *Occup Med.* 2002: 2; 80-84.

Occupational Health Care Provision of Services. Appendix 4: Analysis  
*Occupational Health Care Provision of Services* 2004.

Ouden den, E. Development of a design analysis model for consumer complaints: Reveiling a new class of quality features. 2006 Eindhoven: Universiteitsdrukkerij Technische Universiteit Eindhoven

Rasanen, K, Husman, K, Peurula, M, Kankaanpaa, E. The performance follow-up of Finnish occupational health services. *International Journal for Quality in Health Care* 1996; 9: 289-295.

Ravelli, DP. Deinstitutionalisation of mental health care in the Netherlands from 1993-2004. 2004: Nieuwegein: Budde Elinkwijk grafische producties. Social and Economic Council of the Netherlands (SER). Advice nr. 04/03: Statistics Netherlands (CBS). Statistics Occupational health services and occupational health advice agencies. Voorburg; 2003

TNO Work. Little businesses and occupational health. "I don't want an answer but a solution". Report 2003

Valk de, MMA, Oostrom, C, & Schrijvers, AJP. The assessment of occupational health care in the Netherlands (1996-2005). *Occup Med*, 2006  
Weel, ANH, van der Beek, AJ, Kroon, PJ, Verbeek, JHAM, & van Dijk, FJH. Recent changes in occupational medicine in the Netherlands. *Int Arch Occup Environ Health*. 1999; 72; 285-291.

Yin, R. K. Case study research: Design and methods. 2003: London, UK: Sage publications.

## **Chapter 3**

### **The influence of Human Being Management-Based Occupational Health on prevention and treatment of patients with burnout**

## **Chapter 3.1**

### **Introduction to the concept of burnout. Burnout: a closer view**

M.M.A. de Valk, C. Oostrom and U.H.M. van Assouw,  
Previously published in Nederlands Militair Geneeskundig Tijdschrift,  
September 2007

## **Abstract**

Nowadays the phenomenon of burnout is established in common parlance. Although one in ten Dutch employees suffers with feelings of burnout, an unambiguous description about the definition and diagnosis of burnout didn't exist before. Burnout, also known as EES, emotional exhaustion syndrome, is defined as a disorder that usually makes its début in the mid thirties with characteristic feelings of exhaustion of body, spirit and soul. The best treatment is prevention, but overall the main goal is to re-establish balance between emotion and cognition. Employers fulfil a key-role in this process and it's up to them to create a healthy environment where, besides the wish to make a career, the opinion of the employees, their view on what is good for the company, is considered important. Special master class self-management courses for higher-educated professionals are designed with the main goal of awaking involvement free from boundaries and, by so doing, create a healthy, effective and pleasant working environment.

## **Burnout: A closer view**

*The objective of this intermezzo chapter is to explain the concept of burnout and its causes. This chapter is based on knowledge and papers which are well-known in the field of occupational health.*

Sixty percent of the Dutch working population has complaints concerning stress. Stress by itself is not detrimental but must be seen as a positive tension needed to act under extreme conditions. It becomes problematic when there is not sufficient time for convalescence between periods of stress. In these circumstances it can lead to chronic mental complaints, and a syndrome described as Burnout.

Also defined as work-related neurasthenia ICD-10, Burnout (recognized as a syndrome) has increasingly become a syndrome with a huge impact on work and life. Burnout and other stress-related complaints are responsible for approximately one third of all cases of work incapacity. At the moment, one in ten working Dutch people suffers feelings of burnout. Prevalence and risk groups of approximately four percent of the Dutch working population suffer from burnout complaints, a similar percentage to those (already) under psychotherapeutic treatment for burnout (clinical burnout: diagnosis work-related neurasthenia ICD-10).

#### Description and development of the term burnout

The description burnout now has been naturalized in daily speech: the expression burnout was introduced more than 30 years ago by the psychiatrist Herbert Freudenberger in his study concerning stress complaints in employees of New York's Public Health Centre for drug addicts. Many employees in this clinic gradually started showing a lack of energy, motivation and involvement, together with a mixture of mental and physical symptoms. To define this condition Freudenberger chose a word which was also used to typify the decrease of impact (burnout) of chronic drug use. Then, in the 1970s, the social psychologist Christina Maslach became interested in the way employees in the service sector handled emotional tension.



They decided on the description of the term burnout because it was common among Californian lawyers to express the state of mind of their colleagues as being gradually exhausted, cynical and no longer engaged with their colleagues. After the concept of burnout had been introduced, it soon became a very popular subject, both within science and in society. The syndrome of burnout had already been considered probable, but was never recognized or named in relation to research or clinical data. The first literature concerning burnout was inventory describing, not empirical, which resulted in a complex and very general meaning of the expression.

Most of the articles were anecdotic and no more than individual case descriptions. In the eighties, empirical study into burnout began. Burnout had a certain reputation in countries outside the United States and the UK, such as other countries in Europe and several countries in Asia, and then it became accepted worldwide as a recognized term. Burnout has become a more common description since the development of general burnout questionnaires (MBI and UBOS).

Over the last few years, there has been more attention paid to the positive equivalent of burnout, namely passion, and the relation of this to burnout. Although the description is rather superficial, most people associate burnout as a situation of very little energy in which even daily activities can be too much. When confronted with people and colleagues enjoying life, a burnout patient will react tired and without drive. People with complaints of burnout have been exhausted for a long period of time, in such a way that they can no longer work and even lack the energy to attend social events. When someone has burned out this way, a lot of energy has been spent but nothing productive has been achieved; there is a general lack of awareness of positive, stimulating things in work and life.

All events, especially those less pleasant, come hard and the capacity to handle them is small. People with complaints of burnout are frequently seen as being overstretched, irritable, dark and overtaken by despondent ideas. Thoughts keep coming back and remain, without any direction or solution. An increased cynicism and pessimism concerning the future is seen.

## Definition

Besides this general description of burnout complaints originating from practice experiences, a number of recognized definitions also came to life. The largest contemporary Dutch dictionary, 'Van Dale', defines burnout as the sum of complaints being the result of a long-term, too-high workload. The central office for statistics (CBS) measures burnout by these five judgments:

- (I) I feel emotionally exhausted,
- (II) at the end of the working day I feel empty,
- (III) I feel tired getting up in the morning and faced with my work,
- (IV) I feel completely exhausted by my work, and
- (V) I feel completely without energy.

Strictly speaking, these exclusive complaints are a result of serious mental fatigue and are not related to other levels of 'the Human Being'. The description burnout is still connected to obscurity and ignorance, which is underlined by the fact that it has not yet been incorporated in the latest version of the psychiatry handbook 'Diagnostic and Statistical Manual or Mental Disorders' (DSM-4) or under the category undifferentiated somatoform disturbance.

Most used is the scientific definition of burnout by Maslach and Jackson:

*"Burnout is to be defined as a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among people who work."*

Emotional exhaustion refers to the feeling of being entirely empty - or very nearly; all reservoirs have been used; the battery is empty and can no longer be charged. Depersonalization comes with alienation of respect for others; a chilly, cynical, distant and impersonal attitude to those one works with daily. Reduced personal competence is related to the feeling of under-performing at work, which comes with feelings of insufficiency and self-doubt.

Although from the beginning interest for burnout has focused on 'contactual' professions where professionals work with people, burnout also occurs within other professions. The popularity of Maslach and Jackson's definition relies especially on the fact that the questionnaire developed by them, the Maslach Burnout Inventory (MBI), is used worldwide. The Dutch MBI, the Utrechtse Burnout Scale (UBOS) and UBES (Utrechtse werkbelevingslijst), developed by Schaufeli et al. have been officially recognized by the Dutch Association of Occupational Physicians as indication-instruments for the diagnosis of burnout.

As stated before in this chapter, the prevalence and risk groups of approximately 4% of the Dutch work population suffers from burnout complaints, similar to the percentage under psychotherapeutic treatment for their burnout complaints (clinical burnout: diagnosis work-related neurasthenia ICD-10). Moreover, approximately 20% of employees run an increased risk of burnout (score in the upper quartiles on the three burnout dimensions). Although from the start interest for burnout focused on 'contact' professions, where professionals work with people, it rapidly became clear that burnout also occurs within other professional areas.

It is not surprisingly that, in the beginning, burnout patients were especially looked for in the so-called *contact* professions, because over time, the constant, intensive, and emotionally exhausting contacts turn initial enthusiasm into irritation and fatigue. Meanwhile, it is clear burnout also occurs in other, 'non-contactual', professions, where there does not seem to be a situation of depersonalization, but rather a certain distance in respect of the work in general. The other descriptions (emotional exhaustion and a feeling of incompetence) correspond mainly to contactual professions.

Although the general conception that people who work in contactual professions are at greater risk dominates, little systematic study has been performed on the question of which company branch has the highest prevalence and incidence of burnout. Only a few systematic analyses (Schaufeli and Enzman) found that emotional exhaustion is seen mostly in the field of education, followed by welfare officers and health care.

Feelings of depersonalization are seen mainly in doctors and members of the police force. The feeling of reduced competence at work is seen mainly within social work, nursing and among police constables. Doctors are therefore a risk group for the onset of burnout. These complaints are often underestimated because it is accepted that doctors work hard and are therefore very tired. And because of the individual sense of responsibility of many doctors they do not limit their working hours, but go on... In a next chapter, the problems of burnout in the medical profession are discussed further.

Besides the fact that certain occupational groups have an increased chance of developing feelings of burnout, there have been links to other demographic variables. A relation between age/work experience and burnout exists, although not always consistent. A number of American studies describe higher burnout rates among employees between 30 to 40 years of age, and burnout has therefore shown a negative link with work experience.

This is challenged by Schaufeli, Bakker, Van Dierendonck; their analysis of 29 Dutch studies concludes that employees aged 35 and upwards are a relatively higher risk group for the development of burnout. The group of 35 to 44 year-olds ('midlife') runs the highest risk of burnout. Another analysis from these authors of 8 other Dutch studies shows no difference between the age groups in their relative risk of burnout.

There is still no clear theory about the onset of burnout. It was formerly assumed that women were more at risk. But this did not take into account the fact that women often hold lower positions and are therefore less rewarded for their commitment. If this factor is accepted, no further differences are found between genders.

However, a connection between civil status and burnout has been suggested. Probably more single people report feelings of burnout because they miss the social support married or cohabiting couples have. No significant connection has been found in the onset of Burnout by working too fast.

Still these external descriptions and findings give no complete answer to the contexts, nature and origin of burnout in the three explanation fields.

The three fields of explanation:

So far, three fields of explanation are seen as relevant for the phenomenon of Burnout: **(i) the individual, (ii) private situation and (iii) the labour organisation.**

(i) In the individual or personal area, a lack of self-reflection is frequently seen. They can be characterized as perfectionist, attentive, dutiful, have little self-confidence and are not used to seeking social support. They go on performing well, and meanwhile pay little attention to their own body and well-being in periods of stress. Also, it has been proven that people who tackle problems in a passive and defensive manner are more prone to this disorder.

(ii) The private situation: Nowadays materialism and status play an important role. Being 'on-line' day and night means private space and work are no longer separated. People who take their work concerns home are at almost seven times higher risk than employees who do not worry. And finally, on the aspect of time management; nowadays it is difficult for many people to choose between the wide ranges of time-spending activities on offer. This leads to the situation that one spends more time than is desirable being busy. Problems arise when people feel 'hunted' (rushed?) during longer periods of time with little time in between to relax (and as a result no more time to recover.)

(iii) The occupational situation; labour organizations at risk are the health care, the service sector and in the educational sector; professionals who work directly with other people, who are very involved with their work and who fully commit themselves to their job. Work is a means of expressing oneself in life and a way of developing personally. As the labour organization imposes rules, this can also cause a conflict situation for the professional and can eventually lead to mental complaints. In these professions, employees are also exposed to work stressors (high emotional job demands and a strong feeling of time pressure, among other things) and have relatively little recourse to vital resources (control capacity and autonomy, among other things) to counter this workload-pressure.

#### Emotional Exhaustion Syndrome (EES)

Emotional Exhaustion Syndrome can be considered a new description of the commonly used term 'burnout'. Until recently, no univocal description for this phenomena existed. In the late 90s De Valk, with a group of international researchers within IFOH (The International Forum for Organisational Health) developed a new integrated definition for Burnout. This definition, among others used, has been recognized by the Council of social development (RMO) and meanwhile also by the scientific committee of the international professional association for labour medicine ICOH (International Committee for Occupational Health) Scientific Committee.



*The definition: Exhaustion syndrome with signs of depression<sup>10</sup>.*

E.E.S., also described in most countries as 'Burnout', is an anomaly which usually appears between the ages of 30 and 40. It is characterized by feelings of exhaustion of both body and mind (mental and physical). It is usually triggered by extreme stress after a significant life event or a series of shocking events (small shocks) when there is no opportunity for recuperation. Listening to peers and colleagues in one's immediate social circle, the victim appears emotionally flat and tired.

There is at that time dissociation between emotion and reason (lack of feeling). The fact that the normal anxiety and depression criteria cannot be applied is significant. It can only be diagnosed clinically and be assessed by a questionnaire UCL, UBOS, UBES<sup>11</sup>) or psychological test.

ICD-10 work-related neurasthenia does not fully describe EES because it is not only the work, but also not being able to cope with the family or the normal life circumstances or leisure that leads to burnout.

It appears that there is an imbalance between *having, doing and being*.

Often lack of time and structural self-management, self-reflection and self-analysis have been the basic cause of the syndrome.

---

<sup>10</sup> English version produced in co-operation with Mary Manolias, Occupational Psychologist, president IFOH 93-95, Surrey England 2002.

<sup>11</sup> Schaufeli et al.

*Etiology:* Personal characteristics of the victim can be described as slight narcissistic perfectionist (not ready to take advice) and usually not aimed at seeking social support. One coping style i.e. active (always wanting to carry on, keep going despite problems) or a defensive, passive style is usually the only style of coping employed but sometimes in combination with palliative approach i.e. having a drink, use of leisure (sports, dancing).

*Clinical signs:* Defined by a slow onset and subjective and objective deterioration of normal function in relation to normal work and social demands. In relation to fatigue which cannot be explained by a somatic (viral) or psychiatric (depression) disease, it is obvious that we see both mental and somatic fatigue and muscular pain, which has been caused by the constant unconscious tension of the striped muscles. This has to be interpreted as a natural but inadequate defence mechanism. **Sometimes a headache mainly centered in the shoulders and neck appears, but this is not accompanied by nausea and vomiting.** Typically, this type of headache is not related to the time of day or physical exertion or relaxation. When there is nausea or dyspepsia, it is said to be caused by a vasovagal reaction to stress. Mentally, the clinical picture is dominated by cynicism and pessimism about the future and an over-sensitive reaction to criticism.

*Prognosis and therapy:* the prognosis is fairly good if therapy is started early: Recuperation within six months is the average if appropriate therapy is applied. Therapy should be mainly aimed at restoring the balance between emotion and reason. It is very important to address all the non-realistic feelings of guilt in the early stages of therapy. It has been shown that when the therapy focuses on defining personal goals, the chance of recurrence is reduced. Individual therapy in combination with structured colleague support groups has been shown to prevent and cure the syndrome. Anti-depressants and sleep medication should not be administered under any circumstances. Therapy and prevention should be in an interdisciplinary setting, led by a clinical psychologist and an occupational physician.

In the next chapters, prevention is described on a micro, meso and macro level. In the individual (micro level), the recommended focus is on relaxation therapy, self-reflection and self-management. Human Being Management is the proposed answer to prevention on the meso and macro level.

## **Summary**

One in ten Dutch employees suffer with feelings of burnout. Nowadays the phenomenon of burnout is established in common parlance. An unambiguous description about the definition and diagnosis of burnout didn't exist before. Burnout, also known as EES: emotional exhausting syndrome, is defined as a disorder that usually makes its début in the mid thirties with characteristic feelings of exhausting of body, spirit and soul. The best treatment is prevention but, overall, the main goal is to re-establish balance between emotion and cognition. Employers fulfil a key-role in this process by creating a healthy environment, not only for themselves, but also for their employees, considering both opinions in the well-being of their company.

## **Statement**

Burnout is a concept, which is cultural-determined.

## Literature

- Arbeidsomstandigheden: werk en gezondheidsaspecten 2001
- American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders-IV-TR. Centraal Bureau voor de Statistiek (CBS). Statweb. 1994
- Bakker, A., Schaufeli, WB, Dierendonck, D. van .Burnout: prevalentie, risicogroepen en risicofactoren. In: Houtman, ILD, Schaufeli, WB, Taris, T. (red.) Psychische vermoeidheid en werk. 2000 NWO/Samsom, Alphen aan de Rijn.
- Bakker, A., & Schaufeli, W. Burnout contagion process among teachers. *Journal of Applied Social Psychology* 2000; 56: 2289-2308.
- Dixhoorn, JJ van. ntspanningsinstructie. Principes en oefeningen. 1998 Maarsssen: Elsevier/Bunge.
- Freudenberger, HJ Staff burnout. *Journal of Social Issues* 1974; 30: 159-165.
- Greenglass, E. Burnout and gender: Theoretical and organizational implications. Invited paper for *Canadian Psychology* 1991; 32: 562-572.
- Maslach, C. Burnout. *Human Behavior* 1976; 5: 16-22
- Maslach, C., Schaufeli, WB, & Leiter, M. Burnout. *Annual Review of Psychology* 2001; 52: 397-422.
- Maslach, C., & Jackson, SE. *Maslach Burnout Inventory. Manual 2<sup>nd</sup> ed.* 1986 Consulting Psychologists Press, Palo Alto.
- Nederlandse Vereniging voor de Arbeids- en Bedrijfsgeneeskunde (NVAB).
- Raad voor Maatschappelijke Ontwikkeling (RMO) Werken aan balans. Remedies tegen burn-out Den-Haag 2002
- Richtlijnen voor bedrijfsartsen 2000. Handelen van de bedrijfsarts bij werknemers met psychische klachten.
- Schaufeli, WB, & Buunk, BP Burnout: An overview of 25 years of research theorizing. MJ Schabracq, JAM Winnubst, & CL Cooper (Eds.). *The*

Handbook of Work and Health Psychology 2003; 383-425. John Wiley & Sons, Ltd

Schaufeli WB, Enzman D. The burn-out companion to study and practice: a critical analysis. London: Taylor & Francis, 1998.

Van Dale Hedendaags Nederlands 3<sup>e</sup> druk Van Dale Lexiografie 2005

Valk de, MMA, Burnout, Emotional Exhausting Syndrome (EES), uitputtingssyndroom met depressiviteitskenmerken: 1999: The Congress Scientific Program of the 27th ICOH International Congress on Occupational Health 2003 February; 23-28 Iguassu Falls, Brazil.

Valk de, MMA, & Meyer, OMT (2002). Human being management voor een betere balans. Nederlands Tijdschrift voor de Bedrijfs- en

Verzekeringsgeneeskunde, 2002; 2: 49-52. Valk de MMA. De zin van zijn.

Voedsel voor de ziel. 2004 Zoetermeer. Uitgeverij Meinema Valk de MMA.

Zelfmanagement voor de ziel 2007 Zoetermeer. Uitgeverij

Meinema Vredeveld C. Wat is burnout eigenlijk?; about 2 screens. Mediator; feb 2003; jaargang 14; 1

**URL's:**

[www.burnin.nl/?id=div\\_art\\_cvv#fp\\_1387](http://www.burnin.nl/?id=div_art_cvv#fp_1387)

## **Chapter 3.2**

### **Burnout in the medical profession: causes, consequences, and solutions – A discussion**

M.M.A. de Valk and C. Oostrom,  
previously published in *Occupation Health (at Work)*,  
March 2007

## **Introduction**

Chronic emotional exhaustion, depersonalization and stress-related disinterest, symptoms of burnout, may be more common in physicians than many other professional groups, given the nature of the work, the working environment, and in many cases, the lack of support. Maurice de Valk and Charlotte Oostrom review current literature and discuss approaches to prevention and management.

## **Background**

Burnout and other stress-related illnesses among physicians are receiving increased attention and have been described in many branches of medical practice, including general medicine, family practice, surgery, and intensive care. According to the American psychologist Christina Maslach, burnout is a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment. Burnout, she says, occurs particularly among those who do 'people work' such as police work, social work, teaching and, of course, healthcare.

Doctors spend a good deal of their working time in contact with patients and colleagues. In addition, helping people with significant life problems – as doctors do – is another major challenge in their work. This can be rewarding when patients show gratitude after consultation. However, as patients become more demanding, physicians are more regularly confronted with a lack of reciprocity in their relationships with their patients.



These interpersonal characteristics, and other demanding aspects of their work – such as time urgency, a continuous need to develop new skills and practice routines, and concerns about malpractice – are making doctors a high-risk group for developing burnout. The consequences of physician-burnout are serious, not only because it reflects personal suffering, but also because burnout threatens the quality of care that doctors are expected to deliver. This article discusses the published evidence on stress and burnout among physicians and on how these risks to mental health can be reduced.

Our discussion focuses on papers on physician burnout published between 1990 and early 2006. These papers include literature reviews and original research papers published in international scientific journals. This overview is based on an extensive literature review that was performed in 2006.

We systematically searched various scientific databases (Pubmed, Medline) for articles that reported on these burnout issues in doctors. We have used burnout, stress, physicians, doctors and related terms as keywords.

We reviewed studies that met the following criteria:

- (1) a publication date between 1990 and 2006 because this review aims to give an overview of the current picture,
- (2) the measurement of burnout with the MBI in order to moderate the comparison of the studies,
- (3) more than 50% of the subjects were either practicing physicians or medical residents,
- (4) describing either the prevalence, causes, consequences, or solutions to physician burnout.

A supplementary condition was that these studies had to be available in full text format. A total of 53 articles met the criteria of our search. However, for publication in Occupational Health at Work and the manageability for one article we had to limit the number of references to a maximum of twenty. The references in this article are therefore the most relevant for the purpose of this article. Moreover, in the selection of the papers we tried to identify those studies from Western countries like the US, the Netherlands, Australia and the UK where being a doctor means the same. The characteristics of the selected studies can be found in table 4. A complete overview of all the references can be found in the original extended version of this article that is not included in this thesis.

#### Definitions

- **Burnout** usually refers to job-related chronic stress. As we have seen above, Maslach analyses burnout into three components:
- **Emotional exhaustion** is considered to be the core symptom of the burnout syndrome and refers to energy depletion – the person feels tired and emotionally drained
- **Depersonalization** refers to a negative, cynical, unaffected attitude towards the patients
- **Reduced personal accomplishment** describes the development of negative attitudes regarding oneself in relation to the job.

This definition of burnout is the one mostly encountered in systematic research due to the fact that the Maslach Burnout Inventory (MBI), a highly validated burnout questionnaire, can measure these three dimensions. All of the studies in this discussion use Maslach's definition of burnout and the MBI (or a translation) to assess it.

## Prevalence

Though burnout rates can change depending on organizational context and specific samples, many studies report high levels of burnout in doctors, with psychological morbidity ranging from 19% to 47%, compared with a rate around 18% for the general employed population.

For primary care doctors or general practitioners, most studies report a moderate degree of burnout, especially for the emotional exhaustion dimension. Studies in several Western European countries, including Switzerland, Italy and France, report prevalence ranging from around 20% to more than 50% in some studies. However, the literature is not consistent in what medical specialty the highest percentage of burnout can be found. The reported prevalence in the different disciplines varies, but one study found rates ranging from 27% in family medicine to 75% in obstetrics/gynaecology.

Of course, these numbers should be interpreted with caution. In all of these studies the MBI was used to assess burnout or burnout dimensions among physicians, which is only a self-report measure with 20 items. It merely gives an indication of the severity of burnout symptoms in comparison with norm groups. In general, these doctors are still working and haven't been diagnosed with the burnout disorder based on a diagnostic interview. The MBI, in this sense, can be considered more of a screening measure that identifies the people *at risk* of developing burnout. Nevertheless, the prevalence rates that are found with the MBI are high and burnout symptoms among doctors should not be underestimated.

### Causes of burnout

Most studies emphasize the interaction between personality and environmental factors as the most important cause of the development of burnout in medical practitioners.

Some people are more prone to develop burnout syndromes than others. It is the nature of our personalities that defines how we appraise and interpret the different work characteristics. There is a general agreement in the medical literature that obsessive, compulsive, conscientious, and committed personality characteristics are extremely common in doctors.

These personality qualities are a source of vulnerability in doctors because they may result in dysfunctional perfectionism, inflexibility, over-commitment to work, isolation of affect, dogged persistence and an inability to relax.

When demands are excessive and loss of control threatens these kinds of personalities, the scene is set for a negative outcome, such as burnout.

A second important cause of burnout is a demanding workload together with low (perceived) control or autonomy. It is no secret that being a doctor requires long working days, dealing with stressful situations, administrative burdens and emotionally demanding contact with patients. If at the same time the perceived control over their work is low, doctors find themselves in a vulnerable position to develop burnout symptoms.

The climate in medicine is changing: there is less time for doctor-patient contacts, an increase in paperwork, a trend towards managed care, reduced government spending, diminished physician resources and increased medical school tuition. At the same time, patients have become more strenuous and demanding, have higher expectations, and no longer have the same respect as they used to have for doctors.

These factors not only contribute to lower job satisfaction, high job satisfaction being a potential buffer against the development of burnout, but also cause a decline in autonomy and control in doctors.

Additionally, physicians can feel undervalued in their professional relationships. When doctors' 'investment' in their work – which may include time, effort, empathy, or attention – are reciprocated by patients showing gratitude and appreciation after a consultation, or when patients recover after treatment, the investments and outcomes are balanced, and equity exists. Lack of reciprocation contributes to imbalance. Medical practitioners can also experience imbalance in the relationships they have with their colleagues and the organisations they work for.

Work imbalance can lead to a feeling of inequity, which in turn leads the individual to experience emotional discomfort and distress; and the greater the perception of inequity, the greater these feelings. These feelings are associated with emotional exhaustion – usually the first response to environmental stresses.

However, work stressors rarely occur in isolation and another important factor in the development of burnout among doctors is the so-called work-home conflict. Most doctors work long hours, sometimes even for six days a week, and they often work shifts. Social support is believed to be a buffer against stressful work life. However, when there is little time left to spend with your family, the opportunity for help from your spouse or partner is limited.

In addition, gender differences in this context are worth further commenting on. Female physicians may be involved with home and family organisation to a greater extent than their male counterparts.

Although physicians may deal with other people's personal problems all day, they are the least likely to admit that they are under stress themselves. Self-care is not part of the doctor's professional training and is typically low on their list of priorities. In fact, many doctors don't even have their own general practitioner. Early recognition of their problems prevents further deterioration of their mental and physical health and more specifically the development of burnout.

**Table 1. Important causes of burnout**

Causes	Examples
Personality characteristics	Committed, compulsive, perfectionism
Demanding workload/low control	Long working days, emotional demanding contacts with patients
Undervalued relationships	No gratitude or appreciation from patients after consultation
Work-home conflict	Little time left for a supporting home environment
Lack of self care	No general practitioner

### Consequences of burnout

For the most part, the manifestation of burnout in physicians does not differ from that experienced by other professionals, but physicians' reactions may be unique in some respects, because the symptoms of burnout can have devastating consequences for their patients.

The job satisfaction in physicians who have feelings of burnout is lower compared with physicians without burnout, they find their work unrewarding, believe they are treated unfairly, and are confronted with conflicting values. More serious problems include the following: marital problems (19%), emotional disorders (18%), problems with alcohol (3%), and drug abuse (1%) due to failure to cope with their stressful working conditions. Personal relationships are often damaged by burnout.

Moreover, being a doctor is one of the few socially acceptable reasons for neglecting the family and other relationships. People know and respect the responsibilities and long working hours of physicians and therefore more easily accept that this goes together with family time.

According to Gunderson is the tendency towards substance abuse (alcohol, drugs, pharmaceuticals) even a more serious consequence of burnout because around 10% of health professionals develop a substance-related disorder at some point in their lives. The access to pharmaceuticals, thrill seeking, and self-treatment of pain increase the risk for an addiction in physicians. Depressive feelings are often the consequence of burnout symptoms with suicide sometimes as the final disastrous outcome. Their access to drugs and these depressive feelings could explain why this tragedy is more prevalent among people working in medicine than most other professions.

Many studies focus their attention on the consequences for the patients of physician burnout. Particularly depersonalization and reduced personal accomplishment can have devastating effects. The more cynical attitude can result in a decrease in empathetic concern towards their patients, a psychological withdrawal from work, irritability and lack of patience. The reduced feeling of competence that is associated with burnout can result in a decreased subjective and objective performance evaluation in doctors as well as nurses. Martine and his colleagues found that burnout was also related to an increase in medical errors.

Additionally, patients show lower adherence to physician's advice from doctors with low job satisfaction, who are unhappy, cynical and irritable. Moreover, physicians with low job satisfaction have been linked to inappropriate medicine prescribing patterns and to a boundary violation or unethical physician conduct, such as sex with patients, violation of patient confidentiality, or prescribing for self.

**Table 2. Important personal and professional consequences of physician burnout**

<b>Personal consequences</b>	<b>Consequences for patients</b>
Lower job satisfaction	Decrease in empathic concern
Damaged personal relationships	More medical errors
Substance abuse	Lower patient adherence
Depressive feelings	Inappropriate medicine subscribing patterns



## Solutions

As stress and burnout are complicated constructs with multiple causes and consequences, there are no straightforward answers to the problem in doctors. However, the solutions can be in combining preventive measures, including changes to the work environment and management systems, with programs to manage burnout in those who already experience it or who are at risk of developing it.

One area that has gained in popularity is the use of stress management programs to teach people techniques to deal with stressful experiences. In this context, De Valk and Werner showed that it is not only important to increase the 'stress tolerance' of doctors but also to teach them how to regain the pleasure of work.

Burnout is not only a stress disorder but also includes various motivational and identity issues. Intrinsic values such as the extent to which physicians experience a sense of meaning in their work should be promoted. For instance: influencing happiness through personal values and choices; spending time with family and friends; religious or spiritual activities; self-care, adopting a healthy philosophical outlook; and reviving values, motivation and goals.

To continue on the motivational aspects of burnout, we introduce **the goal-orientation construct** that should be considered in relation to burnout. Goal orientation is the framework within which individuals react to, and interpret, events and is related to several other important constructs such as locus of control, engagement and motivation. In general, two different goal orientations have been distinguished:

- **Learning orientation** – the motivation of individuals to increase their competence
- **Ego orientation** – the motivation to gain favourable judgments of their competence or to avoid negative ones

The work of doctors is characterized by numerous challenges in dealing with demanding patients, time constraints, administrative burdens and a high workload. A learning-orientation attitude can help doctors in dealing with these working conditions in a healthy, adaptive manner. Individuals striving for ego goals are more vulnerable to develop a maladaptive response pattern.

Research evidence suggests it is better to strive for learning-oriented goals. Students with goal profiles characterized by a high task in combination with a low ego-orientation reported the lowest levels of burnout. Students that often endorsed learning goals exhibited a wider repertoire of coping strategies, and employees of a large academic hospital with a learning orientation reported more job satisfaction, more work-related learning, more engagement and more positive emotions.

The goal-orientation construct is best characterized as a somewhat stable individual difference variable that may be influenced by situational characteristics. The situational learning orientation can be influenced by the way feedback is given, the way the management deals with mistakes and misfortunes and the reward systems that are employed, and specialized training programs that help people to adopt a learning orientation by changing their self theories and their attitudes towards skills, effort, and achievement.

Moreover, the ability to balance professional and personal life can reduce the risk of developing burnout. Spending uninterrupted time with one's family and maintaining a life outside the hospital or clinic with non-medical interests – for example undertaking hobbies – can create a buffer against the consequences of a high workload. General wellbeing and job satisfaction appear to be important compensatory mechanisms for a stressful working life. In addition, an extensive social support network is a personal resource that can protect against the development of burnout.

Professional isolation, social isolation, and/or lack of other support limit the physician's capability to respond to periods of stress. Social support programs, therefore, form another category of intervention techniques that can be helpful. Doctors would benefit from greater institutional support and other kinds of reward/support systems from their organisation, as well as a work environment where there is a frequent exchange of feedback, support and appreciation.

Another category of burnout-prevention measures involves altering the workplace and working conditions of physicians. The priority should be on prevention. A first step is to encourage the development of early screening systems. It is important to recognize early signs of impairment and distress, the so-called red flags, according to Riley. Visser and colleagues argue that organisational factors are more important in determining doctors' health than are personal factors. A focused approach on both an organisational and a health-policy level, including a better reward and support system, improved administrative support, more influence/control in decision making and availability of resources should thus be promoted.

**Table 3. Possible solutions to physician burnout – overview**

Solution	Target	Delivered by
Stress management/Self management	Personal resources	Multidisciplinary professionals
(Social) support programs	Personal resources	Professionals
Screening programs	Early recognition	Management, organisation
Changing working conditions	Working environment, organizational rules	Management, organisation
Changing legislation, health policies.	Working environment, legislation	Government, medical association

## **Occupational Health Solutions**

This review aims to emphasize the problem of physician burnout – an underestimated problem that needs addressing not only for the protection of the health of the doctor, but also because of the possible and consequential damaging effects on the care of patients.

The specific nature of the work of doctors, in combination with certain personality characteristics, makes the burnout problem a complicated issue with no simple and straightforward solutions. The problem calls for a multidisciplinary approach on the individual, organizational, medical-association and political levels, with prevention as well as intervention measures.

In addition, we have discussed the relevance of addressing spiritual and motivational – or ‘goal-orientation’ – factors in prevention and treatment, because burnout also includes issues concerning identity. The goal is to stimulate doctors to be healthy and motivated professionals who are able to deliver the best possible care to their patients.

Although the focus of this paper was on physician burnout, many of its conclusions can be generalized to other professions. The fundamental aspects of the burnout syndrome are the same; but in different work environments the manifestations, causes and consequences may differ. It is the responsibility of occupational health professionals to look for the unique aspects of burnout that belong to these professions in order to find optimal solutions.

### **Personal reflection to (the prevention of) the burnout problem**

In addition to the solutions discussed above that are based on the literature, we wanted to end this paper with a brief consideration of a special self-management program.

The motivational and identity issues of burnout are emphasized in the self-management programs that we teach to different medical specialists. Most physicians attending our programs have not yet developed burnout, but recognize that they have to change their way of living to prevent it. Besides some practical lessons on time and stress management, most of the program time is dedicated to understanding personal values, motives, and goals with a philosophical point of view.

These reflections help the physicians to balance their life in such a way that it is in harmony with their principle values. A balanced life is a necessary condition to prevent the development of burnout related symptoms.

## Conclusions

- Burnout is defined as a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment. It is particularly prevalent in those who do 'people work' – such as healthcare workers, social workers and teachers
- Although the work of physicians can be rewarding, factors such as work–life imbalance, long hours, demanding workload, perceived low control over their work, concerns over complaints against the doctor and a lack of reciprocity in relationships with patients all reduce job satisfaction, and consequently can increase the risk of burnout
- Personality characteristics, such as compulsiveness and being conscientious and committed, are common in physicians and may increase their vulnerability to burnout. Many doctors do not have their own GP and often fail to admit to their own stress
- Consequences of burnout range from relationship problems to substance misuse and even suicide
- Solutions should be multidisciplinary and combine preventive measures – including changes to the work environment and management systems – with programs to manage burnout
- Stress-management techniques that teach people how to cope better with stressful situations should also address spiritual and motivational factors in order to help physicians gain pleasure and satisfaction from their work and life outside work

**Table 4 Characteristics of selected studies<sup>a</sup>**

<b>First author</b>	<b>N</b>	<b>Kind of study</b>	<b>Country</b>	<b>Publication year</b>
Deckard	120	Correlational study	US	1994
De Valk	137	Quasi experimental	Netherlands	2003
DiMatteo	186	Longitudinal	US	1993
Elit	50	Cross sectional survey	Canada	2004
Firth-Cozens	-	Review	UK	2000
Gundersen	-	Review	US	2001
Kluger	422	Cross sectional survey	Australia	2003
Lawrence	234	Cross sectional survey	Australia	1996
Martini	321	Cross sectional survey	US	2004
Oostrom	220	Correlational study	Netherlands	2005
Pullen	1128	Crosse sectional survey	Australia	1995
Riley	-	Review	US	2004
Smets	1512	Correlational study	Netherlands	2004
Spickard	-	Review	US	2002
Visser	2400	Cross sectional survey	Netherlands	2003
Zwerts	143	Correlational study	Netherlands	1995

<sup>a</sup> Only the references concerning physician burnout are included in this table



## **Summary**

Burnout may be more common in physicians compared to many other professional groups, given the nature of the work, the working environment, personal characteristics and in many cases, the lack of support. There is increased attention for burnout and other stress-related illnesses among physicians and the evidence for this has been discussed, as well as the multiple causes and consequences. There are no straightforward answers, but possible solutions focus on multidisciplinary and preventive measures, changes to the work environment and management, stress-management techniques to cope, addressing spiritual and motivational factors in order to help physicians gain pleasure and satisfaction from their work and life outside work.

## **Statement**

Thinking in preventative concepts should be a basic skill for doctors.

## Literature

Deckard G, Meterko M, Field D. Physician burnout: an examination of personal, professional, and organizational relationships. *Medical Care* 1994; 32: 745-754.

DiMatteo MR, Sherbourne CD. et al. Physicians' characteristics influence patients' adherence to medical treatment: Results from the Medical Outcomes Study. *Health Psychology* 1993; 12: 93-102.

Dweck CS, Legget, EL. A social-cognitive approach to motivation and personality. *Psychological Review* 1988; 95: 256-273.

Elit L, Trim K et al. Job satisfaction, stress, and burnout among Canadian gynecologic oncologists. *Gynecologic Oncology* 2004; 94: 134-139.

Firth-Cozens J. New stressors, new remedies. *Occupational Medicine* 2000; 50: 199-201.

Gundersen L. Physician burnout. *Annals of Internal Medicine* 2001; 135: 145-148.

Kluger MT, Townend K, Laidlaw T. Job satisfaction, Stress and burnout in Australian specialist anesthetists. *Anesthesia* 2003; 58: 339-345.

Lawrence, J. (1996). Stress and doctor's health. *Australian Family Physician*, 25, 1249-1256

Maslach C. Understanding burnout: Definitional issues in analyzing a complex phenomenon. In W. S. Paine, editors. *Job stress and burnout*. Beverly Hills, CA: Sage, 1982; pp 29-40 .

Martini S, Arfken CL et al. Burnout comparison among residents in different medical specialties. *Academic Psychiatry* 2004; 28: 240-242.

Oostrom C. De modererende rol van doeloriëntatie in de relatie tussen werkkenmerken en verschillende vormen van welzijn [The moderating role of goal orientation in the relationship between work characteristics and well-being]. Master thesis, *Industrial and Organisational Psychology* 2005, University of Tilburg.

Pullen D, Lonie C et al. Medical care of doctors. *Medical Journal of Australia* 1995; 162: 481-482.

Riley GJ. Understanding the stresses and strains of being a doctor. *Medical Journal of Australia* 2004; 181: 350-353.

Smets EMA, Visser MRM, Oort FJ. Perceived inequity: Does it explain burnout among medical specialist? *Journal of Applied Social Psychology* 2004; 34: 1900-1918.

Spickard A, Gabbe SG, Christensen JF. Mid-career burnout in generalist and specialist physicians. *Journal of the American Medical Association* 2002; 288: 1447-1450.

Visser MRM, Smets EMA et al. Stress satisfaction and burnout among Dutch medical specialist. *Canadian Medical Association Journal* 2003; 168: 271-275.

Valk,de MMA, Werner A. Burnout in medical professionals : A cost effectiveness study of a multidisciplinary intervention program. *Nederlands Militair Geneeskundig Tijdschrift* 2003; 56: 21-23.

VandeWalle D, Brown SP et al. The influence of goal orientation and self-regulating tactics on sales performance: A longitudinal field test. *Journal of Applied Psychology* 1999; 84: 249-259.

Zwerts C, Schaufeli W et al. Burnout en prestatie in intensive care units [Burnout and performance in intensive care units]. *Tijdschrift voor Sociale Gezondheidszorg* 1995; 73: 382-389.

### **Chapter 3.3**

#### **The Occupational Health Care Services (OHCs) in the Netherlands: What determines the diminishing 'recovery time' factor of burnout?**

M.M.A. de Valk, C. Oostrom and U.H.M. van Assouw,  
based on a previously published article under the same title  
Icfai University Press 2008 ISBN 9788131415726

## Abstract

➤ Background

Occupational health care in the Netherlands is arranged by internal as well as external OHSs. Although the illness burnout stays the same, there is a discrepancy in the recovery time of burnout between internal and external OHSs.

➤ Aim

'What is the factor that decreases the recovery time of burnout with the internal occupational health care service?'

➤ Methods

In total, 156 company doctors from external and internal OHSs completed our questionnaire concerning the OP-GP co-operation and the expected treatment of a burnout case. The responses were analyzed and described. A key component of this process was the correlation between the recovery time of burnout in days and the treatment of civil and army services in cases of burnout.

➤ Results

Besides the preferred treatment options of the two services, there were no considerable differences found between the two services that could explain the differences in recovery time of burnout between the internal and external OHSs.

➤ Conclusion

Internal OHCs, represented by the army, expected a remarkably shorter recovery time of burnout. Concerning the treatment options, the army service prefer not, or only when necessary, to refer their patients. Civil services more directly their patients refer to the GP. It is still not clear what would be a causal factor.

**Key words**

Burnout

In-house;

External occupational health care services;

Occupational health care;

The Netherlands;

Occupational physicians (OPs).

**Introduction**

In the Netherlands, occupational health care (OHC) is arranged by in-house (internal) or external, commercial, occupational health care services (OHSs). Five external large commercial OHSs, such as 'ArboNed' and 'Commit', take care of about 85% of all Dutch employees. So far they have created a monopoly position on this market.

Despite the legalisation of OHC by the Dutch government, the Netherlands has the highest recorded levels of work stress, sickness-related absenteeism, and work-disability in Europe. According to the European Court of Justice, the in-house health care services would be the ideal. However, managing an in-house OHS is almost financially impossible for small and medium-sized companies.

Because of the high costs only a few medium and large companies can afford their own in-house OHS. Apart from the costs, the process quality of an OHS is even more important. Recently, De Valk and colleagues assessed the differences in quality between in-house and external occupational health care services.

They defined quality of care in terms of efficacy – the ability of care, at its best, to improve health – and they have also looked at structure and process quality indicators of care. The ability is at its height when the specific needs of the clients are fulfilled. They came to the conclusion that the in-house OHSs have the highest ability because of their integration into the company they work for and the delivery of custom-made goods regarding service and preventive measures. Because of their structure and working methods they are the best suited to improve the health of the organisations they work for and because of this they are better in terms of efficacy.

An independent unpublished study by Weers<sup>12</sup> and colleagues reviews the outcome of the above-mentioned study. Among other things, they investigated the expected recovery period of burnout patients in an in-house (Royal Army) and two large external OHSs.

We have chosen to focus on the burnout case because it showed the greatest discrepancy between the two kinds of services in terms of expected recovery time, and because research showed that it is a great problem among the Dutch working population.

---

<sup>12</sup> The research by Weers et al. carried out in 2005 aimed to get more insight into the co-operation between the in-house OH doctor and the general practitioner, consequently the external OH doctor and the general practitioner. This was done by a so-called vignette study in which two external services and an internal service (army) were involved. Four vignettes consisted of a patient with respectively a disorder of the movement apparatus (Hernia Nuclei Pulposi), a patient with a nerve-muscle disorder (fibromyalgia), a patient with a mental disorder (burn out) and a patient with a recognised chronic sickness (rheumatoid arthritis). Striking results in convalescence duration were seen particularly in the cases concerning HNP and burn out, where the convalescence duration with the civil services was longer than with the service of the country power (115 versus 101 days for HNP and 187 versus 138 days for burn out). **On average the doctors of the OH services 161 summon to as convalescence duration and the doctors of the army 142 days.** The doctors of the army are more positive regarding their work and their contact with the general practitioner. Finally the doctors of the civil OH services have more logistical problems and feel they are more dependent on the general practitioner.

In case of burnout, the recovery period of the in-house OHS involved 138 days opposed to 187 days for the external OHSs. Besides which, the occupational physicians (OPs) of the army are also more positive about their work, including their contact with the general practitioner. They accredited this to the small (health) management distance.

As far as this is concerned, in-house services like the Royal Army Ground Force are, as opposed to external OHSs, more focused on preventive measures and on long-term improvements, and more integrated into the organisations they work for. Also, the expected recovery period of burnout was notably decreased for the in-house service.

Due to these findings we came to the following aim of this study:

*'What is the factor that decreases the recovery time of burnout with the internal occupational health care service?'*

This factor means treatment and policy.

## **Method**

156 OPs from one internal OHS (Royal Ground Force) and two external OHSs participated in this study

Weers and colleagues based our study on previous data from the study. They obtained their data from qualitative research done by the Royal Army and two external OHSs. Based on the completeness or otherwise of the previously taken questionnaire, we eliminated 78 OPs.



We took relevant variables concerning the case of burnout and the OP-GP co-operation out of their investigation. The burnout case was divided into the subjoined items: 'the use of protocols and standards', 'contact moment with employer', 'contact GP', 'bottleneck contacts GP', 'contact moment with patient' and 'treatment options'.

The questionnaire on OP-GP co-operation was subjoined into the items 'identification profession', 'co-operation regarding the care aspects', 'logistics' and 'atmosphere'. The answers on this questionnaire were supposed to be given on a scale from 1 to 4 respectively 5.

#### *Statistical analyses*

Firstly the standard descriptive for the demographic variables (sex, age, graduation year, and tenure) for the two research groups was computed. With a Chi square test for the nominal variables and an ANOVA for the continuous variables, we compared the two groups for differences on the demographic variables. When one of the cells had an expected frequency of less than 5, we used the Fisher's exact test with the Yates continuity correction Chi Square.

Secondly, we examined whether there were any differences between the two groups on the variables concerning the burnout case (including expected recovery time) and OP-GP co-operation. Again the Chi square test, or the Fisher's exact test with Yates continuity correction when appropriate, was used for the nominal variables, a Mann-Whitney test for the ordinal variables, and an ANOVA for the continuous variables.

Finally, we conducted a multiple regression analysis with expected recovery time in days as dependent variables and the most relevant variables as predictors to examine which factors influence the expected recovery time. The most relevant predictor variables are those that are expected to be

important, based on theoretical considerations and the variables that showed a significant correlation with expected recovery time of burnout in days.

The statistic software SPSS 12 was used for analyzing the obtained quantitative data.

## Results

The study conducted a questionnaire about the OP-GP co-operation and burnout cases of 32 OPs from the army service and 124 OPs from the civil services.

### *Demographic variables*

Significant differences existed between the two services in terms of gender (Chi Square = 6.67,  $p < .05$ ) and tenure (Chi Square = 22.81,  $p < .01$ ) and age ( $F = 10.96$ ,  $p < .01$ ) and graduation ( $F = 10.03$ ,  $p < .01$ ) (Table 1). In comparison with the OPs of the civil services there were more male OPs with a full-time job in the army service. Also, the army OPs were younger and had a higher graduation year than their colleagues in the civil services.

**Table 1. Baseline characteristics company doctors**

	Army service (n = 32)	Civil services (n = 124)	Total (n = 156)
Gender*	90.6% male	67.7% male	72.4% male
Age (years)**	42.7 year	47.5 year	46.5 year
Graduation year**	1989	1985	1986
Tenure**	93.8% full-time	46.0% full-time	55.8% full-time

\*\* sig < .01 differences between the army and civil services.

\* sig < .05 differences between the army and civil services.

## Differences between the two services

### *Recovery time of burnout*

There are significant differences between the army service and the civil service concerning the recovery time in days ( $F = 8.29, p < .01$ ) and the recovery time in months (Mann-Whitney  $U = 1123, Z = -2.91, p < .01$ ). The recovery time of burnout was 135.0 days for the OPs of the army service and 187.2 days for the OPs of the civil services. OPs of the army service expected more recovery in the first 3 months and between 3-6 months than their colleagues from the civil services. The expected recovery time of burnout in months was the highest at 3 to 6 months for both of the services. Contrary to the OPs of the army service, the OPs of the civil services more often expected longer than 12 months recovery time for burnout (see table 2).

**Table 2 Recovery time burnout**

	Army (n = 32)	Civil (n = 124)	Total (n = 156)
Recovery in days**	135.0 days	187.2 days	177.2 days
Recovery in months**			
< 3 maanden	21.4%	9.3%	11.6%
3-6 maanden	64.3%	49.2%	52.1%
6-12 maanden	14.3%	39.8%	34.9%
> 12 maanden	0%	1.7%	1.4%

\*\* sig <.01 differences between the army and civil services

### *Burnout Case*

In the case of burnout there was a significant difference between both services concerning their treatment options (Chi Square = 37.49,  $p < 0.01$ ) (Table 3).

More OPs from the army service do not, or only when necessary, refer their patients compared to their colleagues in the civil services. More OPs from the civil services directly refer their patients to some kind of specialist (e.g. psychotherapist, psychologist, medical specialist).

No statistically-significant differences existed between the two services in terms of 'bottleneck contacts GP', 'contact moment with patient', 'contact moment with employer' and 'the use of protocols/ standards'.

A trend to significance (Chi square = 2.73,  $p < .10$ ) was found on the sub item 'contact GP': 'Request GP for information'. OPs from the army service do more often request information from the GP than their colleagues in the civil services.

**Table 3. Outcome OP in cases of burnout.**

	Army service (n = 32)	Civil service (n = 124)	Total (n = 156)
Treatment options OP**:			
No reference	15.6%	9%	9.2%
Direct reference	9.4%	69.2%	56.6%
If necessary reference	75%	23.3%	34.2%
Contact GP:			
Request GP for information <sup>a</sup>	35.7% yes	20.8% yes	23.9% yes
Tune to GP	89.3% yes	80.2% yes	82.1% yes
Reference to GP	28.6% yes	21.7% yes	23.1% yes
Bottle-neck contacts GP:			
GP is unknown / inaccessible	3.1%	14%	11.4%
Treatment GP is not in concurrence	40.6%	37%	37.9%
In other respects	9.4%	16%	14.4%
Not complete a form	12.5%	4%	6.1%
Check of both questions	28.1%	22%	23.5%
None	6.3%	7%	6.8%
Contact moment with patient:			
Periodic contact (monthly)	90.6%	96.7%	95.4%
Contact by request	9.4%	3.3%	4.6%
Contact moment with employer:			
By way of SMT	100% yes	94.5% yes	95.7% yes
After each consult	93.5% yes	95.7% yes	95.2% yes
The use of protocols / standards			
OP use NHG-standard	0% yes	2.6% yes	2.6% yes
OP use NVAB-standard	90.6% yes	86.1% yes	87.1% yes

\*\* sig <.01 differences between the army and civil services

\* sig <.05 differences between the army and civil services

<sup>a</sup> Trend to significance sig < .10 differences between the army and civil services

#### *OP-GP co-operation*

Significant differences were also found between the two participating occupational health care services on several OP-GP co-operation variables (Table 4).

#### *'Co-operation regarding the care aspects'*

Concerning the co-operation regarding the care aspect, there was a significant difference in the dependence of the GP for specialized referrals between OPs from the army service and OPs from the civil services (Mann Whitney U = 1360, Z = -2.85, p < .01). OPs in the army service (M = 3.06) hardly depended on the GP for specialized referrals and OPs from the civil services (M = 2.55) depended to a small extent.

We found a trend of a statistical difference in the task of the GP to advise his patient to abandon his/her job between the OPs from the army and those from civil services (Mann Whitney U = 1598.5, Z = -1.81, p < .10). The army services (M = 3.63) more than the civil services (M = 3.90) found that this was the task of the GP.

A trend to significance was also seen for the contact with the GP for treatment of work-related illnesses between the army and civil services (Mann Whitney U = 1517, Z = -1.91, p < .10). The OPs from the army service (M = 2.03) contacted the GP more often concerning the treatment of work-related illnesses than the OPs from the civil services (M = 2.36).

*'Logistics'*

On a logistical basis, a significant difference (Mann Whitney U = 1353.5 Z = -2.56, p < .05) was found for GPs not returning calls between the army and the civil services. The civil services (M = 2.13) had more unreturned GP calls than the army service (M = 2.52). Concerning GPs whose names were not known, we found a trend of significance in the unknown name of the GP between the two services: army service and civil service (Mann Whitney U = 1549.5 Z = -1.68, p < .10). The army service (M = 2.48) experienced more often that sometimes the name of the GP was unknown than their colleagues in the civil services (M = 2.83). We found a trend of significance concerning the absence of the GP between the two services: army service and civil service (Mann Whitney U = 1522.5 Z = -1.94, p < .10). The army service (M = 1.77) experience more often that the GP was not present than the OPs from the civil services (M = 1.54).

**Table 4. OP-GP co-operation (mean scores)**

	Army service (n = 32)	Civil services (n = 124)	Total (n = 156)
<b>Identification profession:</b>			
Enjoying the profession	1.50	1.56	1.55
OP most beautiful profession	1.78	1.96	1.92
Proud to be a OP	2.41	2.60	2.56
Never give up this profession	1.71	1.81	1.79

(1 = totally agree, 5 = totally disagree)

	<b>Army service (n = 32)</b>	<b>Civil services (n = 124)</b>	<b>Total (n = 156)</b>
Task GP to advice on abandoning the job <sup>a</sup>	3.63	3.90	3.84
Task GP to advice on returning back to work (1 = always, 5 = never)	3.47	3.47	3.47
Contact GP for diagnosis work related illnesses	2.52	2.69	2.66
Contact GP for treatment work related illnesses	2.03	2.36	2.30
Contact GP for specialized referral diagnosis	2.52	2.56	2.55
Contact GP for specialized referral treatment	2.32	2.56	2.51
Contact GP for advice on returning to work (1 = often, 4 = never)	2.52	2.56	2.55
Dependent on GP for diagnosis work related illnesses	2.97	2.88	2.90
Dependent on GP for treatment work related illnesses	2.72	2.62	2.64
Dependent on GP for specialized referrals** (1 = to a high extent, 5 = totally not)	3.06	2.55	2.66
<b>Logistics:</b>			
Who takes initiative for contact? (1 = always GP, 5 = always OP)	3.17	3.24	3.23
Name GP unknown	2.48	2.83	2.76
Problem finding telephone number GP	3.13	2.91	2.95
GP not present <sup>a</sup>	1.77	1.54	1.58
GP does not return calls* (1 = often, 4 = never)	2.52	2.13	2.21
<b>Atmosphere:</b>			
Atmosphere contact GP**	2.00	2.36	2.29
Information level contact GP (1 = very good, 5 = bad)	2.63	2.75	2.72
GP is open during contact <sup>a</sup>	2.41	2.84	2.75
GP considers multiple aspects <sup>a</sup>	2.72	3.11	3.03
GP is clear in his/her expectations* (1 = totally agree, 5 = totally disagree)	2.97	3.43	3.34

\*\* sig <.01 differences between the army and civil services

\* sig <.05 differences between the army and civil services

<sup>a</sup> Trend to significance sig < .10 differences between the army and civil services



*'Atmosphere'*

A significant difference in the atmosphere of the contact with the GP existed between the OPs from the army and civil services (Mann Whitney U = 1348, Z = -2.87, p < .01). OPs from the army service (M = 2.0) found the atmosphere in the contact with the GP better than the OPs from the civil services (M = 2.36).

There is also a significant difference in the clarity of the GPs explanations between OPs from the army and civil services (Mann Whitney U = 1499, Z = -2.09, p < .05). OPs from the army service (M = 2.97) supported the clarity of GP explanations more than their civil OPs colleagues (mean 3.43).

Concerning the contact moments with the GP, we found a trend to a significant difference in the openness of the GP during contact moments between the OPs from the army and the civil services (Mann Whitney U = 1518, Z = -1.94, p < .10). The GP was more open in the contact with the army service (M = 2.41) than with the civil services (M = 2.84).

Another trend to significance was seen with the consideration of multiple aspects by the GP between the army and the civil services (Mann Whitney U = 1541, Z = -1.90, p < .10). In comparison with the civil services (M = 3.11), the army service (M = 2.72) agreed much more with the theory that the GP considers multiple aspects.

### **Expected recovery days in relation to variables**

With different correlational analysis we examined which variables showed a significant relation with expected recovery time in days to determine which variables should be present in the multiple regression analysis. None of the variables had a correlation higher than .7 with one of the other variables; therefore there is no problem of multicollinearity. Not many of the variables showed a significant correlation.

The following variables had a significant ( $p < .05$ ) or a marginally significant ( $p < .10$ ) correlation with the expected recovery time in days and are included in the multiple regression analysis: (1) 'graduation year', (2) 'treatment options', (3) 'contact moment with patient', and (4) 'GP not present'. In addition, because of the possible confounding influence of the demographic characteristics, gender, tenure, and age are also included to control for their effects.

A multiple regression analysis with three blocks was performed. The nominal variables were recoded into dummy variables. The first block contained the demographic variables; the second block the variables concerning the burnout case, and the variable 'GP not present' (regarding OP-GP co-operation) in the third and final block.

In the final analysis containing all the variables, three variables had a significant effect. We shall look at the results of the third analysis containing the variables of all three blocks because that is the most comprehensive analysis. Firstly, when the graduation year of the OP was higher, the expected recovery in days was also higher ( $\beta = .421$ ,  $p < .05$ ). Secondly, when the GP was more often present when the OP tried to contact him, the expected recovery time in days was lower ( $\beta = -.197$ ,  $p < .05$ ). Finally, a trend to significance was observed for the variable treatment, when the OP chose the treatment option 'direct reference' the expected recovery time in days was higher ( $\beta = .251$ ,  $p < .10$ ). The effect of these variables was nevertheless small; the explained variance (adjusted R square) of the third model was only 8 percent.

## **Discussion**

Weers and colleagues based this study on the outcome of an unpublished study. The researchers came to the conclusion that the recovery time of burnout treated by company doctors of internal occupational health care services was significantly lower than that of their colleague company doctors of the civil services. This study was carried out to investigate what factor(s) could be responsible for this remarkable decrease in recovery time in days by burnout patients.

In total, 156 OPs participated in our study, 32 of whom belonged to the army service. In the army service, 90.6% of the company doctors were male and 93.8% of them had a full-time job. A possible explanation of the significance between sex and tenure might be the fact that the population of the army service is predominantly male. Because of the traditional idea that men are the breadwinners, as expected, this would find expression in the upgrade to full-time tenure. OPs from the army service were also younger (42.7 years) and had a higher graduation year (1989) than the OPs from the civil services. The significance difference between the age and graduation year can be explained. It is obvious that the younger the company doctors were, the higher their graduation year would be.

Interesting features were seen in the expected recovery time of burnout between the two services.

Firstly, the army service was capable of decreasing the recovery time for burnout to 135 days, compared to the 187 days for the civil services. Especially in the first six months, a recovery percentage of 85.7% was reached.

Secondly, concerning the monthly-expected recovery time, the army service cured 21.4% of their burnout patients in the first three months compared to

9.3% of burnout patients treated in the civil services. The recovery time between the 3 and 6 months was also in favour of the army service: 64.3% against 49.2% for the civil services.

Thirdly, between 6 and 12 months of recovery time the civil services made a **greedy stroke** of 39.8% in their treatment of burnout.

#### *Differences between the two services*

Significant differences were found concerning the treatment options between the two services. In general, the army service preferred not, or only if necessary, to refer their burnout patients, as opposed to the civil services who more directly referred their burnout patients. Also, specialized referrals to experts were hardly made by the army service and the civil services only referred to a small extent. Although referral from the army service was low, they supported the clarity of GP expectations GP more than their colleagues in the civil services. Though significant differences were found for the atmosphere of the contact with the GP and the openness of the GP during their contact, these differences were small. Both kinds of OP found the atmosphere good and they both partly agreed concerning the extent of GP openness.

#### *Expected recovery days in relation to variables*

The item "treatment options" was a significant factor explaining the expected recovery time in days for burnout. Our study showed that direct referral to an expert leads to a longer (182 days) and no referral leads to a shorter (122 days) expected recovery time in days of burnout. A possible explanation of this might be that no referral took place with the group of burnout patients with a less severe clinical picture, so it is more likely that they recover sooner.

The differences between the OHSs in regard to their treatment options could explain the differences in the expected recovery time in days for burnout. The army service does not refer, or only when necessary, and the

civil services refer directly. This results in a shorter recovery time in days of burnout in favour of the army service. This is in concordance with the above-mentioned finding.

Another factor might explain the differences in recovery time of burnout between the two services. The OPs from civil services often had more existing contracts with medical and other specialists than OPs from the army service, and were therefore more inclined to refer their patients than their army counterparts.

Also, the item "GP not present" was a significant factor in explaining the expected recovery time in days for burnout. If fewer GPs are unavailable when the OPs try to contact them, the expected recovery time of burnout is higher. It could be argued that when the GP is present for consultation, the cooperation between the OP and GP is better suited to assessing and treating the burnout patient in an efficient way, which should be reflected in their recovery time.

The recovery time for burnout in days could also predict the graduation year of the OPs: when recovery time increases, the graduation year of the OPs also increases. So, the higher the graduation year of the OP, the longer the recovery time for burnout patients. It can be assumed that less experience directly influences the recovery time in a negative way.

De Valk and colleagues mentioned earlier in their study that the benefit of an in-house OHS, like the army service, is the ability to achieve very high process quality. Perhaps we simply can't measure a single item that determines the diminishing recovery time factor of burnout.

Maybe it's due to the fact that the ability of care was highest when the OHS were able to practice appropriate measures that fulfilled the specific needs of their clients, such as internal services, as in the army. They achieved the highest process quality because they were able to integrate in the organisations they work for, and by so doing were able to provide the most extensive type of service, and they could indent towards preventive issues because of their integration in the organisation.

Because of the unequal group sizes, the study has a limitation. The total study population is not representative of a random test. The army service OPs accounted for 20.5% of the total number of OPs who participated in this study. So the major part consisted of OPs from the civil services.

Because of this, their questionnaires are of more value than those of the relatively small number of OPs who represented the opinion of the army service. There were no limitations found in the framework of internal validity because our investigation indeed showed significant differences.

Furthermore, there were a few characteristics of the clients of the two kinds of services that could have influenced our results. First, in the army the employees are predominantly young and healthy males. Second, the professions and work demands of the army are substantially different from those of civil society. The influence of these factors is not clear and could not be checked; the findings of this study should therefore be interpreted with caution.

## **Recommendation**

It is advisable to keep an eye on what each variable really can contribute to improving the OP-GP co-operation. By creating appointments together with the GPs, standard operating procedures (SOP) can be estimated in order to achieve a lower recovery time of burnout. But OPs have to live up the to protocol otherwise each investment is useless.

## **Conclusion**

We confirm that the OPs of the army service achieved a considerable shorter recovery time for the treatment of burnout than their colleagues in the civil services. The recovery time in the first 3 months and between 3 and 6 months was considerably shorter in the army service. The treatment options were significantly different between the two services. The army service referred not, or only when necessary, to refer patients to the GP. On the other hand, civil services were more likely to refer their patients directly to the GP. However, the causal relation remained unsolved. It's accepted that the power of high process quality, like the in-house OHS of the army, determines the diminishing recovery time factor.

## **Acknowledgements**

None.

## **Conflicts of interest**

None declared.



## **Summary**

The burnout illness stays the same, but there is a discrepancy in the recovery time of burnout between internal and external OHSs. An explanation for this difference was studied by analysis and evaluation of questionnaires responded to by 156 company doctors from civil and army services, taking OP-GP co-operation into consideration as well as the expected treatment of a burnout case. There were no considerable differences found between the two services, which could explain the shorter recovery time of burnout between the internal army and external civil OHSs. Civil services referred their patients directly to the GP, the army services preferred not to, or only when necessary.

## **Statement**

A quality management system (e.g.. ISO, OHSAS, EFQM) is recommended to improve the (quality of) well-being in the individual worker and the organization.

## Literature

Karaian, J. Sick of it: European companies can find plenty of cost savings if they address burgeoning absenteeism problem. CFO Europe Magazine. 2003.

Nicholson PJ. Occupational health in the European Union. *Occup Med.* 2002;2;80-84.

Nicholson PJ. Occupational Health services in the UK-challenges and opportunities. *Occup Med.* 2004;54;147-152.

Statistics Netherlands (CBS). Statistics Occupational health services and occupational health advice agencies. Voorburg; 2003.

TNO Work. Little businesses and occupational health. "I don't want an answer but a solution". Report 2003

Valk,de MMA, Oostrom, C, & Schrijvers, AJP. The assessment of occupational health care in the Netherlands (1996-2005). 2006: *Occup Med* (accepted for publication).

## Appendix: the Questionnaire

### Case (Burnout vignette)

Mrs. X. married, age 42, communicates that she feels unfit for work due to a burn-out. She visits you in the surgery. For many years Mrs. X. has been employed full-time as head Staff & Organisation for a large organisation. Prior to this sick leave period, Mrs. X. experienced extreme stress caused by work activities.

Observations in this case from the first day of her sick leave until the day she starts working again.

No reference to another expert in your practice (medical specialist, physiotherapist or psychologist); interventions and accompanied direct referral general practitioner and in-house doctor (fill in):

Referred to:

Reason:

At what moment or in which situations do you contact this patient's GP?

Concerning the contacts in this case:

Do you ask for further medical information?

Do you consult another specialist?

Can you mention difficulties you could come across in this case concerning the contact with the GP?

- The GP was not consulted or it was not possible to contact the GP.
- The protocol of GP is not the in line with the policy of the in-house doctor.

Other reason:

When would you prefer to have contact with the patient?

Periodic contact (frequency):

Contact on request or indication:

Contact with the employer?  yes  no

Contact by means of the Social Medical Team?  yes  no

Contact (orally or in writing) with the employer after each consult?  
 yes  no

Would you use at this case of a protocol and/or standard? If so, which  
(several answers possible)?

GP standard  yes  no

OH standard  yes  no

Differently  yes  no

How long do you think it will last before the person concerned will be back to  
work full-time in the same position?

- months
- 3-6 months
- 6-12 months
- 12 months (explanation):

Have you ever treated a case as mentioned above?  yes  no

If you still have observations concerning the case, please mention them:

## **Chapter 3.4**

### **Burnout in medical professionals: an effectiveness study of a multidisciplinary intervention programme**

M.M.A. de Valk and A. Werner,

Previously published in Nederlands Militair Geneeskundig Tijdschrift,

March 2003

## Introduction

Rising rates of stress-related sickness absenteeism in Western societies. Over the past ten years, sickness absenteeism caused by occupational stress has become a major problem in Western societies, with vast socio-economic consequences.

In the UK, the Health and Safety Executive has estimated that half of sickness absenteeism is directly due to work stress. In the Netherlands, the percentage of workers who received disability benefits because of stress-related disorders increased between 1981 and 1999 from 21% to 50%, a percentage that is higher than disability rates for any other physical disease. This increase is mainly due to an increase in occurrence of burnout syndrome, the direct consequence of prolonged, uninterrupted stress, and other stress-related illnesses. What is striking is the fact that sickness absence caused by somatic diseases remains stable and is lower in doctors than in any other professional group.

Apart from the personal harm occurring in illness caused by burnout syndrome or workplace stress, there is a considerable amount of economic damage that is difficult to quantify but comprises of more than just insurance costs and disability benefits. Stressed employees do not function adequately; they underachieve, claim medical consumption and their absence from work increases the pressure on their colleagues.

The costs to the community caused by psychological problems at work in Holland are estimated at approximately 2.13 billion euros a year, which has recently resulted in insurance companies increasing their rates by around 20-30%.

### Major cause

Burnout is the major cause of the rise in stress-related disorders. It is not stress per se, however, that leads to illness and absenteeism. A controllable amount of stress has a stimulatory effect on performance and gives an energizing push to personal accomplishment and feelings of job-satisfaction. Only when stress becomes continuous, when the individual lacks control over the amount and duration of stress, and there is no opportunity for recovery or relaxation, the burnout syndrome can arise. In addition, the work/home conflict that many people experience, together with reduced social support, contributes to the development of burnout symptoms.

### Many definitions of burnout

Unfortunately, there are as many definitions of burnout syndrome as there are publications on the subject. This lack of a golden standard makes the condition difficult to depict and impedes comparison of different studies on therapeutic possibilities. However, most definitions correspond in the fact that burnout syndrome is viewed as a state of physical, emotional and mental exhaustion caused by long-term involvement in situations that are emotionally demanding, with no possibility to recover.

Burnout produces both physical and behavioural changes that are measurable both quantitatively and qualitatively. A useful method to measure the degree of experienced burnout is the Maslach Burnout Inventory, which consists of 4 subscales: Emotional Exhaustion, Personal Accomplishment, Depersonalization and Involvement. Measurable physical parameters of burnout include disturbed levels of serum cortisol and DHEA, and decreased coherence in heart rate variability.

The clinical picture of burnout is atypical, and comprises of fatigue, insomnia and pain in joints, muscles, head and back, usually not responding to medication. In some cases burnout even leads to chemical abuse such as alcohol or drug addiction. The syndrome is not included in the DSM-4, and anxiety or depression criteria should be carefully excluded.

Statistics show that burnout occurs mostly in service rendering professions, and the greatest risk group is found in the medical profession with its long working days, high pressure and emotionally demanding contacts with patients. Moreover, the climate in medicine is changing, there is less time for doctor-patient contacts, an increase in paperwork, a development towards managed care, reduced government spending, diminished physician resources, and increased medical school tuition.

At the same time, patients have become more strenuous and demanding, have higher expectations, and no longer have the same respect as they used to have for doctors in general. Personal characteristics also seem to play an important role: people with a tendency to perfectionism and a high level of involvement, commitment and responsibility are more vulnerable to developing burnout syndrome. Burnout usually hits those who work harder than required, the “never-give-up” types with an active coping style, who have usually functioned excellently for years.



### Previous studies on therapeutic programmes

Once the burnout syndrome is manifest, lack of treatment can lead to prolonged sickness absenteeism and unfitness for work. However, several published studies on intervention programmes show that, if recognized at an early stage and treated adequately, 70-80% of patients suffering from burnout syndrome recover within 7 months. Unfortunately, in the different burnout-intervention programmes there is a wide variation in:

- the type of intervention (relaxation techniques, cognitive coping strategies, biofeedback or individual counseling)
- the duration and intensity of the programme
- the qualification of the therapists (psychiatrists, psychologists, general practitioners, social workers)
- the outcome measurements (self-reported **mood states** with questionnaires, physical parameters)

Therefore, evidence about the effectiveness of these burnout intervention programmes remains unclear. Many intervention programmes were successful in reducing the occurrence of the psychological problems and physical symptoms seen in burnout syndrome. Relatively inexpensive intervention programmes designed to alter multiple resources (psychological, behavioural, physiological, spiritual) may dramatically and positively impact individual health and well-being.

However, in many studies no control group was available, and follow-up information on the long-term effects of the therapeutic interventions was lacking. The fact that, so far, no research had been done to determine the cost-effectiveness of intervention programmes was striking.

## **Objective**

In this article, an effectiveness analysis of a multidisciplinary burnout intervention programme performed in the Netherlands between 1995 and 1999 is described. The aim was to illustrate and objectivate the potential of intervention programmes in reducing the duration of sickness absenteeism in burnout syndrome.

## **Patients and methods**

A total of 137 people working in the medical profession participated in this study, including general practitioners, medical specialists, obstetricians and physiotherapists. Additionally, a group of organizational consultants was included, since their profession is also in the service-rendering category, in which burnout occurs most frequently. The final study sample included 22 general practitioners, 51 physiotherapists, 18 obstetricians, 18 consultants, and 14 medical specialists. These burnout patients were referred to us by an independent medical advisor working for their insurance company.

The randomization was done by systemic selection and we had no influence on the selection procedure and were blind to the random allocation of the patients to the groups. The participants in the intervention group had been assigned to follow this programme by their insurance company between 1995 and 1999. Therefore, to the best of our knowledge, this study met the criteria for a randomized clinical trial.

The participants in the control group were selected within the same time span and received no therapy or counselling what so ever. It was explained to the participants what being part of this study meant, including the possibility that they would not be allocated to the experimental condition.

To be included in the study the participants had to be working in the medical or medical-related profession, had to be diagnosed with clinical burnout (based on the Maslach Burnout Inventory), and receive sickness benefit for the burnout syndrome.

The intervention group originally consisted of 58 patients, however only 44 complete cases were included in the analysis due to lack of follow up. The control group included a total of 79 medical professionals who were all suitable for the analysis.

In both groups there was a similar distribution of profession (table 1), sex, and age. In addition, at baseline the patients in both conditions reported similar levels of burnout because all participants were diagnosed with the burnout syndrome prior to their participation. Therefore, to the best of our knowledge, the only aspect that differed between the two groups was the burnout intervention programme.

The randomization was successful in creating two equal groups based on the demographic variables and the initial burnout level. At the beginning of the study it was decided not to approach a Medical Ethical Commission for approval because the study procedure protected the integrity and privacy of the participants. For today's standards, asking the approval of the Medical Ethical Commission would have been appropriate. However, if we had asked the permission of the commission there would probably have been no serious problems.

The burnout intervention programme in this study used a multidisciplinary approach, with a therapeutic team that included a psychologist, an occupational medical officer, an andragogist, an organizational consultant and a theologian. The therapeutic sessions focused on training of stress-recognition, on defining personal qualities, on time management and coping strategies, on self-reflection and on sharing experiences with a patient that had recovered from burnout syndrome. Duration of sessions was approximately one hour and all patients received assignments for self-management at home. The sessions were held about once every two or three weeks.

**Table 1 Distribution of the intervention and control group over medical professions**

	<b>Intervention group (n = 44)</b>	<b>Control group (n = 79)</b>
General Practitioners	11	11
Physiotherapists	21	30
Obstetricians	3	15
Consultants	6	12
Medical Specialists	3	11

Duration of sickness absenteeism was chosen to be primary outcomes variable in this study because it represents an objective result of the intervention programme and used to estimate the associated costs. Information about the duration of sickness absenteeism (in months) of both groups was obtained on a retrospective basis from their medical insurance companies.

A one-way ANOVA was performed with group as between subject factor and sickness absenteeism in months as dependent variable to indicate if there was a significant difference between the two groups. Frequency of therapeutic sessions, duration of counselling and sickness absenteeism, and costs of the intervention programme were compared with duration and costs of the disability benefits received by patients from the control group. With this information, estimation was made of the cost effectiveness ratio, which refers to the comparison of the relative expenditure (costs) and outcomes (effects) associated with two or more courses of action. No information about the long-term effects of therapy, or the frequency of recurrence of burnout syndrome could be obtained for either the index or the control group.

## **Results**

The average duration of sickness absenteeism in the group of burnout patients following the intervention programme was 5.95 months, versus 10.90 months of sickness absenteeism for the group of patients receiving no therapy (table 2). This difference of 4.95 months reached significance with an alpha level of 0.05 ( $F = 5.10$ ,  $p = 0.026$ ).

Although the group sizes were small, an additional One-Way ANOVA was performed to indicate if there were any differences in sickness absenteeism between the professions. There were no significant differences in the sickness absenteeism due to burnout between the different profession groups ( $F = 1.33$ ,  $p = 0.26$ ). The profession times group interaction also did not reach significance ( $F = 0.98$ ,  $p = 0.43$ ), indicating that there are no differences in effectiveness of the intervention over the different profession groups.

The patients in the intervention group had therapeutic counselling sessions with an average frequency of 1.15 consultations each month; most patients

had a contact frequency of one therapeutic session every two or three weeks. Duration of sessions was approximately one hour and all patients received assignments for self-management at home

A simple cost effectiveness ratio, which was performed, yielded up to 1.71 (119900/69948), which means that no intervention is 1.71 times more expensive than conducting this multidisciplinary intervention in medical professionals that are absent due to burnout symptoms.

**Table 2 Sickness absenteeism in months**

<b>Medical profession</b>	<b>Control group</b>	<b>Intervention group</b>	<b>Total</b>
General practitioners	14.23 months	4.36 months	9.30 months
Physiotherapists	9.63 months	6.52 months	8.35 months
Obstetricians	9.92 months	4.33 months	8.99 months
Consultants	17.98 months	6.67 months	14.21 months
Medical specialists	4.32 months	8 months	5.11 months
Total <sup>a</sup>	10.90 months	5.95 months	9.10 months

<sup>a</sup>Significant difference ( $p < .05$ ) in sickness absenteeism duration between two groups as indicated by ANOVA

## **Discussion and conclusions**

Considering the average reduction of sickness absenteeism of 4.95 months in the treatment group, it is obvious that the costs of disability benefits in absence of therapeutic intervention cases considerably surpass the costs of an intervention programme. The simple cost effectiveness ratio that was calculated clearly demonstrated the possible reduction in costs that is associated with the intervention programme. The frequency of therapeutic contacts and the qualification of therapists in this burnout intervention programme do not differ substantially from studies on intervention programmes in earlier publications.

The extra value of the current intervention programme is determined by its multidisciplinary nature. A divergent team of professionals that all address different aspects of the burnout syndrome help the patients to overcome all the manifestations of burnout (e.g. physical, emotional, motivational, etc).

This suggests that relatively inexpensive intervention programmes may dramatically and positively impact individual health and well-being, and reduce the costs of stress-related sickness absenteeism. Thus, burnout intervention programmes not only seem to result in mental health gains, but also in several social benefits and even economic profits.

At this very moment, this is leading to an increasing interest of occupational policy-makers and insurance companies in particular in compensating the costs and stimulating further development of burnout intervention programmes.

Unfortunately, this study was unable to assess the effectiveness of the intervention programme in relation to the subjective experience in burnout or general well-being. Most cost-effectiveness studies use outcomes like the Quality of Adjusted Life Years (QALY) that represent a subjective general health outcome, although the value and usefulness of QALY is debatable.

For future studies, determination of a manifest definition of burnout syndrome would be expedient.

Furthermore, future research should focus on the follow-up of patients with burnout syndrome to establish the long-term effects of burnout intervention programmes and substantiate what such programmes can and cannot accomplish. In addition, the multidisciplinary intervention discussed in this study was aimed at restoring the balance at individual level (micro).

Future intervention should also be aimed at restoring the balance on the level of the direct environment (e.g. work situation, relationship) (meso), and on the organizational level (macro). Although there is a general recognition that work and organizational problems are the major causes of occupational work stress, there is still lack of research on this second and third level. This kind of measure is directed more towards the prevention of the development of burnout among medical professionals instead of treating patients with already-manifest burnout symptoms. And even if this multidisciplinary burnout intervention programme turns out to be the most effective programme in the world, preventing the development of burnout is always preferred over treating burnout symptoms.



## **Summary**

An effectiveness analysis of a multidisciplinary burnout intervention programme in the Netherlands is described, from 1995 to 1999, with the aim to illustrate and objectivate the potential of intervention programmes in reducing the duration of sickness absenteeism in burnout syndrome. Relatively inexpensive intervention programmes may dramatically and positively impact individual health and well-being, and reduce the costs of stress-related sickness absenteeism, resulting in mental health gains, but also in several social benefits and even economic profits. Future research should focus on the follow-up of patients with burnout syndrome, restoration in the balance on the level of the direct environment (meso), and on the organizational level (macro). This kind of measure is directed more towards the prevention of the development of burnout among medical professionals instead of treating patients with already-manifest burnout symptoms.

## **Statement**

Spiritual and personal leadership prevent workers from Burnout.

## Literature

- Ankone et al. Burnout bij artsen bijna verdubbeld. Medisch contact 1999; 54: 494-97
- Bakker et al Burnout among Dutch midwives. Midwifery December 1996;12(4):174-81
- Centrum Gezondheidsbevordering op de werkplek "Werkstress, strategieën, scenario's, overeenkomsten" aug 1999
- Chambers et al Predicting mental health problems in general practitioners. - Occup. Med. 1994; vol 44: 212-216
- Cuevas de las et al Burnout and reaction to stress. Med Univ Navarra 1997; 41(2):10-8,
- Deary et al Models of job-related stress and personal achievement among consultant doctors. British Journal of Psychology. 1996 Feb; 87(Pt 1): 3-29,.
- Deurzen van Burn-out en stress bij artsen: hoe te voorkomen. van Deurzen LVC aug 1999
- Erp van N. en Bijl R. Richtlijnen sociaal – medische begeleiding bij psychische klachten, , NcGv, 1996
- Felton JS Burnout as a clinical entity - its importance in health care workers. Occup Med 1998;48: 237-250
- FNV "De stress te lijf" brochure, jan 1998
- Goldberg et al Burnout and its correlates in emergency physicians: 4 years' experience with a wellness booth. Acad Emerg Med. 1996 Dec; 3(12): 1156-64
- Guntupalli et al Burnout in the internist-intensivist. Intensive Care Medicine 1996 Jul; 22(7): 625-30
- Hek van der et al Occupational stress management programmes: a practical overview of published effect studies. Occup. Med. 1997; vol 47: 133-141

Higashiguchi et al The development of the Japanese version of the MBI, and the examination of the factor structure. Japanese Journal of Hygiene July 1998; 53(2): 447-55

Hisch et al Physician career management: organisational strategies for the 21st century, Physician Exec 1999; 25: 30-35

Hobfoll, SEStress, culture and community, Plenum, 1998

Hoogduin CAL Binnen tien jaar kan burnout verdwenen zijn. Medisch contact 1999; 54: 1116-18

Hosman CMH, Veltman NE Prevention in mental health - A review of the effectiveness of health education and health promotion.

Humphris et al Burnout and stress-related factors among junior staff of 3 dental hospital specialities. British Dental Journal 1997; 183: 15-21

Krimpen van H., "Blijf je werk de baas" sept 1998

McCraty et al Impact o/a new emotional self-management program on stress, emotions, heart rate variability, DHEA and cortisol. Integr Physiol Behav Sci 1998; 33: 151-170

Melamed et al J. Chronic burnout, somatic arousal and elevated salivary cortisol levels. Psychosom Res 46 1999 591-8

Ministerie SZW "Conceptnota inzake beperking van het ziekteverzuim alsmede van de instroom in de WAO" S.v.A., juli 1999 Nota

Ministerie SZW "Arboconvenanten nieuwe stijl: beleidsstrategie voor de komende vier jaar", jan 1999

Moors S. Stress en werk, oorsprong en aanpak NOVA, 1995

Nakamura et al Natural killer cell activity and NK cell subsets in workers with a tendency of burnout. J Psychosom 1999;Res 46: 569-78

Pruessner et al Burnout, perceived stress, and cortisol responses to awakening. Psychosom Med 1999; 61: 197-204

Ramirez et al Mental health of hospital consultants:the effects of stress and satisfaction at work. - Lancet 1996 Mar 16; 347(9003):724-8

Schiffedercker et al Is drug dependence an occupational risk for physicians?

- Fortschritte der Medizin 1996 Oct. 20; 114 (29):372-3, 376

Schmidt-Rheinwald The cortisol response to awakening in relation to different challenge tests and a 12-hour cortisol rhythm Life Sciences 1999; 64(18):1653-60

Shirom et al Effects of work overload and burnout on cholesterol and triglyceride levels: the moderating effects of emotional reactivity among male and female employees. J Occup Health Psychol 1997 Oct; 2(4):275-88,

Smets et al Burnout onder specialisten neemt toe. Medisch contact 1999; 54: 1048-51 The Lancet 1994

Thomsen et al Feelings of professional fulfillment and exhaustion in mental health personnel: the importance of organisational and individual factors. - Psychotherapy and psychosomatics 1999; 68(3):157-64,.

Crul Zuinig op elkaar. Medisch contact 1999;54: 487

Veldhoven van M. Psychosociale arbeidsbelasting en werkstress. Swetz & Zeitlinger, 1996

Wachter RM An introduction to the hospitalist model. Annals of Internal Medicine 1999 Feb 16; 130(4 Pt 2): 338-42,

Westman et al Effects of a respite from work on burnout: vacation relief and fade-out. - Journal of applied psychology

**URL's:**

<http://www.hse.gov.uk/>

## **Chapter 4**

## **Conclusion**

## 4.1 General Conclusions

### Introduction

#### Research question

In the introduction to this thesis the leading questions are the following:

*Which is the relationship between Human Being Management and Occupational Health and what are the effects on process quality of Human Being Management-based Occupational Health for the treatment of patients with burnout?*

This question actually has two aspects. It addresses the relationship between Human Being Management and occupational health care, which was assessed in this thesis by the studies on the differences in process quality between in-house and external OHS.

The second part of the research question is more complicated. To find an answer to causes of the phenomena of burnout (introduction into to the burnout issue) The burnout problem was further described in three case studies (1) burnout in physicians, (2) a comparison of the treatment of burnout in different OHS settings, (3) a cost-effectiveness study of a multidisciplinary intervention programme for burnout patients.

## 4.2 Summary and overview conclusions

The Dutch occupational health care system is unique in its kind. This has been stated many times in the thesis; for example, besides having his or her own GP, every Dutch employee has his own occupational physician. However, this system has not led to the desired outcomes, such as a reduction in work absenteeism.

Apparently, this measure has not led to a Human Being Management approach in many external OHSs. Nicholson (2002) suggests that simply making access to occupational health a legal obligation is not sufficient for improving employee health, which can only be achieved as a part of a wider strategy for health improvement.

In addition, the obligation for every organization has to be affiliated with a certified occupational health care service is, according to a verdict of the European Court of Justice, a too extensive measure. The way a company manages its occupational health care tasks is principally the responsibility of the company itself, as stated in that verdict. Consequently, the chance that the occupational physician will continue working exclusively within the 'walls' of an occupational health service is small. It is more probable that they will increasingly start working as independent occupational medicine specialists.

In the meantime, since 1st July 2005, the obligation has been discarded and hiring the services of a certified occupational health care service is no longer compulsory for organizations. The implications of this measure on the process quality of occupational health care were out of the scope of this thesis but could be an interesting starting point for further research.

In the introduction of this thesis a short impression of the developments in the field of occupational health care in the Netherlands over the last couple of years was given. The Dutch economy is characterized by high work productivity that is associated with increasing work absenteeism due to physical and mental exhaustion. The current working methods of most occupational health care services do not seem to address these problems with the right measures. The development of growing social and political interest into these issues and the costs of the disabled workers law (“WAO/WIA”) require new measures. A ‘Human Being Management’ approach is recommended.

A central point of this approach is to put the needs of the employee first. Attention for the individual, involvement in possible work-life conflicts, and communication about these issues within every level of the organization are the ways to accomplish a ‘Human Being Management’ approach. The ‘Human Being Management’ method is a necessary extension to human resource management (e.g. competence management, conscious career development support, and training and education) that many businesses and organization have already implemented in their policy. ‘Human Being Management’ reflects the value-driven and employee-oriented approach most in-house OH services apply in their daily practice (chapter 2).

Additionally, this approach better suits the working tasks determined in the job description of the occupational physician (primary and secondary prevention), but in reality, the last decade largely consisted of sickness absence consultation.



In a Human Being Management environment, the role of the occupational physician as a physician of work and health and consultant for organizational health will be clearer. The 'Human Being Management' approach is also better suited to address the burnout issue.

Namely, burnout is not only a problem of exhaustion but also includes several existential aspects (lack of interest in their work, work/life conflict, depersonalization, motivation). With more attention to the individual and the assessment of his or her needs, the conditions are set for a better and, more importantly, a preventive procedure to address the burnout problem.

Many companies already (further) developed Human Resource Management practices to respond to problems such as work absenteeism due to burnout or other stress-related disorders. These practices include competence management, conscious career management and, related to these issues, specific training and stress-management programmes. These developments should be encouraged; however, a necessary condition for success is that they really put the 'human being' central in their approach and not restricts implementation of these measures to arrangement. A Human Being Management approach focuses on a healthy career, a respectful treatment of the people within the organization, and a healthy organisation in general. In this way, the Human Being Management can be a useful supplement to Human Resource Management

In the introduction chapter it became clear that the occupational health care in the Netherlands is not working as it is supposed to. Especially the process quality of the occupational health services is questionable. In the second chapter of this thesis the outcomes of one of the first systematic investigations on the process quality of the Dutch occupational health services are presented. In chapter 2.1, process quality was defined as one of the pillars of quality of care from Donabedian's framework, namely

efficacy (the ability of care, at its best, to improve health). All OHSs achieve a basic level of process quality as required by their certification, which is similar to a quality system like ISO 9001. However the findings of this study demonstrate that there is considerable variety in process quality, especially between in-house and external OHSs. The process quality of occupational health services is mainly dependent on their structure (in-house versus external) and on economic factors (profit-driven versus non-profit).

The structure and working methods of the in-house OHSs are best suited to improve the health of the organizations they work for, thus are better in terms of efficacy. They are more integrated into the organisations they work for, generally provide the most extensive type of service, are more oriented towards preventive measures and have a broader scope of operation.

External OHSs, on the other hand, operate from outside the organization, provide less comprehensive service packages to their clients, usually employ reactive measures and concentrate on making a profit. Therefore, their structure and modes of operation are less suited to provide the highest process quality of care.

Most of the aspects that are important in Human Being Management reflect the more 'value'-oriented, employee-centered working methods of the in-house OHS. Some external OHSs report in their policies that they want to accomplish Human Being Management principles, but in practice they usually stick to the more common and less progressive Human Resource Management. Other studies that have focused more or less on (outcome) quality indicators of occupational health care (sickness absence rates, number of disability benefit recipients, or client satisfaction ratings) in the Netherlands have yielded results similar to ours, pointing in the direction of a higher process quality for in-house OHSs.

In chapter 2.2 a more in-depth investigation into the processes behind the quality of services was conducted. The establishment, policy development, and policy implementation of four different kinds of OHS were discussed in order to understand the factors that determine the process quality of care.

The differences between the In-house and external OHS were visible from the point of the foundation. The two external OHSs were set up because the market for occupational health care was growing as a result of legislation; their motives were principally economic. The motives for the foundation of the two in-house OHSs were completely different; they were established from existing structures within their sponsoring organizations. Their sponsoring organisations had already recognized the need for an in-house prevention service, and the legislation only encouraged them to adjust their service to the requirements for the certification procedure. The different motives for their existence indirectly influenced the policy development and implementation processes of the OHSs.

The large external OHSs, for example, included many cost-saving measures in their policy to obtain a positive trading result and good market position. However, the small external OHS wanted to differentiate itself from the other OHSs by providing more customer-directed care to their clients instead of the standard service packages larger external OHS offer.

The policy development of the two in-house OHSs was more oriented towards preventive measures to obtain the best medical care for the employees of the organisations they work for. The large external OHSs reported implementation problems that seriously harmed the process quality of their service by decreasing the quality-improving activities.

The three other three OHSs did not report such problems, which resulted in the improvement of their services. Important examples of these process quality improvements were: Screening (pro-active), a good task division, the implementation of new systems, regular measurement of customer satisfaction and the efficient organization of working processes.

The processes that underlie the establishment, policy development and implementation of these OHSs provide a more in-depth insight into the 'how' and 'why' of the differential process quality of these services, with eventually the two internal OHS providing the highest process quality in their services.

These results emphasize the findings of the previous study among 26 OHSs on a more individual level. If one compares the practices of the four OHSs to the Human Being Management principles, the working methods of the in-house OHS working for a public organization reflected these principles to the greatest extent because they were the most oriented towards the health of the employees.

The second objective of this thesis was to introduce the burnout problem in relation to Human Being Management and was discussed in chapter three. In the Netherlands, the costs of work absenteeism are high and more than half of this absenteeism is caused by mental illnesses, including burnout. The third chapter consists of four parts, (1) the first part gave an introduction to the concept of burnout; (2) the second article focused on the causes, consequences, and solution of physician burnout, a profession in which the size of this problem is underestimated; (3) in the third article the treatment of burnout was compared between occupational physicians working for an internal and two external OHSs; (4) the last study was about a multi disciplinary intervention programme among medical professionals.

In this thesis the definition of burnout as the Emotional Exhaustion Syndrome (EES) is introduced. EES is a disorder that usually makes its debut in the mid thirties with characteristic feelings of exhaustion of the body, spirit, and soul. The first symptoms of EES often develop after extreme episodes of stress, after major life events or after multiple subsequent events without any time to recover.

Not only the job, but more not being able to respond to the demands in life in general (a misbalance of having, doing and being), plays an important role in the development of EES. This is a broader, less stringent and more spiritual definition than the one that was introduced by Maslach, who conceptualized burnout as a three-dimensional construct consisting of emotional exhaustion, depersonalization and reduced personal efficacy.

The definition of burnout remains a complex issue. The overlap of burnout symptoms with depressive symptoms is especially confusing. The debate about the most relevant definition of burnout is far from over. Maybe, to avoid further confusion, the use of burnout as a construct should be avoided and replaced with exhaustion syndrome with depressive symptoms.

Risk groups are people working in health care, service industries and education. They are in direct contact with people in their work, and are usually are very much involved with and dedicated to their work. The prognosis for burnout is not bad if treatment is started early.

However the best solution is prevention, but overall the main thing is that emotions and cognitions have to become in balance with each other. Employers fulfil a key-role in this process and it is up to them to create a healthy environment where, besides make a career for one's self, there is also place is for the opinion of the employees about what they find important for their company.

This principle is also reflected in the Human Being Management approach that would be beneficial in the prevention of feelings of burnout among employees. Self-management classes for employees not yet experiencing burnout symptoms but who do encounter some stress are another good example of pro-active interventions. These classes help participants to find their personal values, motives, beliefs and priorities and how to implement these principles in their daily life and work. Concentrating on these positive aspects of work and life instead of on negative issues is a promising way of handling the burnout issue.

The emerging positive psychology proposes a shift from the traditional focus on weaknesses and malfunctioning towards human strengths and optimal functioning. A similar switch from burnout towards its opposite, engagement, has recently been put forward. Energy, involvement, and efficacy are the three core dimensions of engagement. Recently, Schaufeli and his colleagues developed the Dutch questionnaire to measure engagement.

Future research should be more concentrated on the positive aspects of work rather than the negative consequences that are predominantly the subject of research conducted in this field.

The second study described in this chapter gave an overview of the causes, consequences and solutions of physician burnout. As noted above, people working in health care are at risk of developing burnout. Physicians were chosen because the rate of burnout among medical professionals is higher than the rate in the general employed population, ranging from around 10% to as high as 50% depending on the medical specialty and the way of assessing burnout.

The review aims to emphasize the problem of physician burnout – an underestimated problem that needs to be addressed not only for the protection of the health of the doctor, but also because of the possible and consequential damaging effects on the care of patients. The specific nature of the work of doctors (emotionally demanding working activities in combination with time pressure, little autonomy, interference with the home life and long working days), in combination with certain personality characteristics (they are often hard working, committed, perfectionist, and conscientious individuals), makes the burnout problem a complicated issue with no simple and straightforward solutions.

The consequences of burnout are not only devastating for the medical professionals themselves, but also involve consequences for the patient if the quality of the care they deliver suffers because of their burnout symptoms. The problem calls for a multidisciplinary approach on individual, organizational, medical-association and political levels, with prevention as well as intervention measures.

In addition, we have discussed the relevance of addressing spiritual and motivational – or ‘goal-orientation’– factors in prevention and treatment because burnout also includes issues concerned with identity. The goal is to stimulate doctors to be healthy and motivated professionals who are able to deliver the best care possible to their patients. A Human Being Management approach would be best to obtain this; the motivational and identity issues that play an important role in burnout are best addressed when the individual is given a central role in the organisation.

Although the focus of this paper was on physician burnout, many of its conclusions can be generalized to other professions. The fundamental aspects of the burnout syndrome are the same; but in different work environments the manifestations, causes and consequences may differ. It is the responsibility of occupational health professionals to look for the unique aspects of burnout that belong to these professions in order to find optimal solutions.

The third study integrated the burnout issue with the differences in effectiveness between in-house and external OHSs. It was demonstrated that occupational physicians working for the in-house service of the army expected a significantly shorter recovery time for burnout patients than occupational physicians working for two large external OHSs. This study tried to identify specific features of OP-GP co-operation and the treatment of burnout that might explain these differences in expected recovery time of burnout patients.



The most important factor that might account for the observed difference in recovery time was the way occupational physicians referred the burnout patients to the general practitioner, psychologists, or other specialists. A direct referral (and to a slightly lesser extent referral when necessary) was related to a significantly longer expected recovery time than no referral at all. The fact that occupational physicians working for external services make use of this measure to a greater extent than their in-house counterparts might explain why these differences in expected recovery time exist.

External services are probably less suited to treating burnout patients because they are less integrated into the organization(s) they work for and, therefore, less able to practice appropriate measures that fulfil the specific needs of their clients. Referral to other professionals seems more obvious in this case than treating these patients themselves. In addition, external services usually have contracts with other organizations, services, or professionals that imply referral in specific cases like burnout. The economic motives of the external services have the upper hand; it is more human capital than human being.

The final study of this part of the thesis demonstrated that a counselling session of approximately one hour once every month was enough to have an average reduction of sickness absenteeism of 4.95 months compared to the control group. The costs of the intervention programme were substantially lower than the costs of stress-related sickness absenteeism of these well-paid medical professionals.

The extra value of the current intervention programme is determined by its multidisciplinary nature. A divergent team of professionals that all address different aspects of the burnout syndrome help the patients to overcome all the manifestations of burnout (e.g. physical, emotional, motivational, etc). What is positive about this programme is the individual approach, which is also advocated by Human Being Management. The intervention groups were relatively small and there was time for individual input from the group. This suggests that relatively inexpensive intervention programmes may dramatically and positively impact individual health and well-being, and reduce the costs of stress-related sickness absenteeism.

Therefore, burnout intervention programmes not only seem to result in mental health gains, but also in several social benefits and even economic profits. At this very moment, this is leading to an increasing interest of occupational policy-makers and insurance companies in particular in compensating the costs and stimulating further development of burnout intervention programmes.

### 4.3 Conclusion

After travelling through wide areas of issues and concerns related to burnout studies, a comprehensive view has been obtained about the initiation and the process of knowledge production. (We also learnt that) Burnout is a crucial area of investigation because of its specificity to job-related stress when, in a time of globalization, both the forms of organization and the nature of jobs are changing rapidly with high performance demands.

The history of research shows commendable work done in the development of various tools like MBI, CBI, OBI etc., and in understanding the complexities of the context that produces burnout. Recently, qualitative methods have been used effectively to capture the complexities of the processes that generate burnout.

The issue of conceptualization is still open as we all wait to see the emergence of cross-cultural studies that will bring out the commonalities and differences across the world, particularly between global north and south.

Not only that, but burnout also demands exploration from the viewpoint of new work cultures in a postmodern/postcolonial situation, and we have tools to do that (Bem and de Jong, 2006, Barker and Galasinski, 2001, McGuire, 2005 and Newton *et. al.*, 1995).

The provided meta study brings out the latest materials selected from different perspectives and contexts including studies in India. All these articles deal with the definitional issues, research methods and the critical viewpoints about areas which need further in-depth investigation. It not only tells the reader how different occupations reveal different knowledge about the impact of burnout on them, but also gives them a fairly comprehensive idea about different preventive interventions that have been proved to be effective.

Particularly interesting is the fact revealed by Sharma's research on Indian executives (2007) that Indian findings may contradict or differ from the already established postulates. This is crucial because in an Indian context, the word 'work' is not always synonymous with the word 'karma' (Mulla and Krishnan, 2006). The way workers experience burnout is culturally mediated and many values for work and accomplishment may not be equated with concepts from Euro-American societies.

While bookshops are flooded with books/literature on 'how to do' burnout, not a single book satisfies the reader's serious and deeper queries about burnout. There has been a palpable void, particularly when teachers, faculties, managers and researchers look for updated material on a recently developed psychological construct within a single cover. It is hoped that this volume will address those needs and provoke more insightful research both in the Indian and global context.

#### 4.4 Recommendations for further research

##### *Strengths and limitations of the studies*

We assessed the process of quality and effectiveness of the Dutch occupational health care system on multiple levels, namely the micro (burnout), meso (OHS) and macro level (national occupational health system). To be frank, this study is subject to certain limitations. The study on differences between the in-house and external OHSs had the following difficulties:

Firstly, the responses are subjective to some degree, despite that fact that, in general, the participants are both objective and experienced. A second limitation is that all information, the questionnaires and supplementary documents, reflect only one viewpoint i.e. that of the providers of the occupational health care.

The investigation did not extend to collecting data from either employees or other professionals in the field. It is recommended that future research should pay special attention to the view of the employee. In addition, sickness absence numbers of the OHS, according to many people the indicator of quality of care, were not considered in this thesis.

However, a recent quantitative investigation on the differences between the in-house and external OHSs regarding sickness absence numbers yields no significant differences, indicating that the quality differences cannot be found on the outcome level. Thirdly, there are problems of internal validity normally associated with conducting non-experimental research.

Finally, in the case study only four OHSs were assessed characterized within the four quadrants of the Dutch occupational health care market. Although it may seem that our findings could be generalized to the other OHSs in the market, our findings only describe the four assessed OHSs.

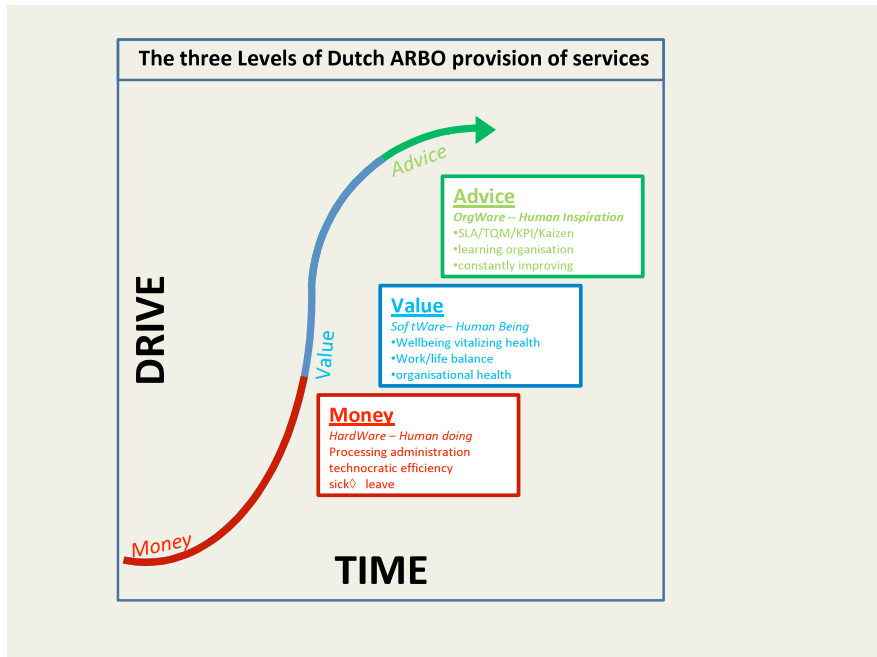
The most important limitation of my study on the causes, consequences, and solutions of burnout in physicians is that it was not an overview of the complete literature concerning physician burnout and, therefore, not classified as a systematic scientific review. Nevertheless, the most relevant studies are discussed and provide the reader with a practical overview of the current developments concerning physician burnout, with special attention regarding the solutions. The cross-sectional study on the treatment of burnout in two different OHS settings suffered the usual problems of causality and the fact that the outcome (recovery in days) was not measured objectively. A significant limitation of the intervention study is its quasi experimental nature; the classification of the participants into the two conditions is not based on randomization.

Despite these limitations, this study provides the reader with one of the first systematic, comprehensive and extensive overviews on the process quality of the Dutch occupational health care market in the context of the Human Being Management concept. The specific strengths and limitations of the included studies can be found in chapter 2 and 3 in the concluding paragraphs of these studies.

## 4.5 Recommendations

One of the most important and striking conclusions of this meta\_study is that, overall, in-house OHSs provide the highest process quality of care.

The findings can be summarized in a model:



Only five percent of Dutch workers receive their occupational health care from internal services, which has developed in the long-term to be functioning on the highest level of value drive. These OHSs show the best results in treating people with burnout.

The greater proportion of the working population (about 80%) is serviced by large external (mostly money driven) services, such as 'ArboNed' or 'Achmea Arbo'. The best care is therefore concentrated on very few employees.

It is not realistic to recommend that all businesses incorporate their own in-house service because of the high costs associated with such a service. However, external OHSs could adopt some of the working methods of the internal OHSs. They could complement their Human Resource Management approach with Business Spirituality principles (ref. Paul de Blot).

An example of managing occupational health care with such principles, proven to be successful, is *integrated care*. This approach resembles the working models of many in-house OHSs that work for public institutions. One of the main assets of the effectiveness is *integrated care* used, for instance, as a basis of the *integrated health model* and introduced by the Royal Navy early last century.

In short, the principle behind integrated care is that it seeks to close the traditional division between health and social care. It imposes the patient's perspective as the organizing principle of service delivery and makes old supply-driven models of care provision redundant.

*Integrated care* enables health and social care provision that is flexible, personalized, and seamless. Grone and Garcia-Barbero (2001) provide us with a more stringent definition: Integrated care is a concept bringing together inputs, delivery, management and organisation of services related to diagnosis, treatment, care, rehabilitation and health promotion.



Within healthcare, integrated care pathways have long been advocated as a means to improving the continuity, quality and outcomes of care for patients.

Specifically:

- The patient and his caregivers are no longer required to coordinate different treatments and steer themselves across different providers.
- Treatment is no longer 'stop-start' in nature.
- The disruptions in the relationship between patient and care professionals are minimized.

In the case of the Royal Navy it means that the tasks of the general practitioner and occupational physician are joined within one person. The Royal Navy has integrated primary health care with occupational health care in order to facilitate prevention and early recognition of work-related disorders. Corporate health services (among others, multinationals, hospitals and banks) have put parts of this model into action to help the company to reduce sick leave at an early stage.

Another question is whether or not it is the responsibility of the OHS to provide the preventive occupational health activities. A verdict of the European Court of Justice in 2003 stated that the management of occupational health tasks should be the primary concern of the organizations themselves. Maybe it is the responsibility of the businesses and organizations to hire the kind of OHS that provides the best possible care, especially in regard to prevention. When the organizations themselves are held responsible for the process quality of occupational care provided to their employees, they are implicitly forced to hire not the cheapest, but the most efficient services. A service that lives up to the principles of Business Spirituality (ref. Paul de Blot), e.g. Human Being Management, is preferred.

In July 2005, the Dutch government acknowledged the unintended consequences of its actions and discarded the legal obligation to use a certified OHS. The outcome of this latest measure is not yet clear, but the large external OHSs in particular are expected to lose business, given the low satisfaction ratings given by their clients. This could be an interesting subject for future research. In addition, the process quality of occupational health care needs to be assessed through the questioning of stakeholders other than the CEOs.

Another question is the use of a certification procedure for occupational health care services. Although the rationale behind such a procedure is to obtain a standard for quality, in practice the quality is not guaranteed, as was demonstrated in our research on occupational health care services. Initiatives such as the Occupational Health and Safety Assessment Series (OHSAS), the international standard control health and safety at work which is used for the certification, should be promoted. However, the certification of entire occupational health organizations is questionable. Organisations are less flexible and react more slowly than individuals.

Now that the legal obligation to hire a certified OHS has been discarded, organisations themselves are responsible for managing occupational health care tasks. Some tasks will be taken care of by resources already available within the organisation. For example, appointing a case manager for the administrative work associated with sick leave.

However some tasks require the help of (independent) professionals. It is not easy to assess the quality of these professionals, therefore the certification of professionals with a system like OHSAS is recommended, instead of organizations. Maybe it is better not to call it certification, but rather appraisal. With such a system, organizations are more flexible in hiring the people they need and are ensured of a basic quality level.

The EFQM model (Hardjono) is very useful in self-evaluation, under the proviso that one realizes the method of assessment is based on the concept of inter-subjectivity. The model helps a widely composed and, on many levels, knowledgeable group to form an opinion of an organisation. The realisation of basic values of the human-being and the organisation are very important in this situation. The founders of the model deliberately strive for the propagation of the 'Rhineland thinking'. This means 'stakeholder-thinking' instead of 'shareholder-thinking'. The EFQM model can help us a step further in securing the quality from resources. Values and stakeholders have a central position in this model.

The literature provides us with numerous possible measures and solutions for the burnout issue; however, actual action is low. The problem asks for a multidisciplinary approach on the individual, organization, medical association, and political level, focusing on the elimination of stress factors (e.g. reducing workload and work intensity), and building up external resources (e.g. adaptation of structures, style of leadership and management, development of new working models).

The example of an intervention programme that only concentrated on building up personal resources, although with a multidisciplinary team, shows that even this can make a huge difference and that the combination of such programmes with more structural measures on the political and organizational level to improve heavy working conditions and increase levels of control, can be effective in preventing and curing physician burnout.

Additionally, the Human Being Management approach described in the introduction of this thesis addresses another important issue. It is crucial to emphasize the human being as a whole entity, incorporating his/her personal goals, values, beliefs and motivations in the intervention. The philosophical point of view that is adopted in several self-management classes to discuss issues concerning the meaning of life is also necessary to treat burnout.

Burnout is, besides being a recognized occupational disease, a matter of motivation and losing a sense of meaning in work, and therefore it is not enough to deal exclusively with stress-tolerance practices in these programmes.

It was out of the scope of this thesis to come up with an extensive recommendation for a burnout prevention programme; however the last implication that will be discussed in this thesis regarding burnout is the role of the occupational physician.

Especially in the Netherlands, where every employee should have his own occupational physician, this role could be very significant. The occupational physician is *the* professional in regard to labour and health, with one of his/her main responsibilities being the prevention of occupational diseases.

Unfortunately, just as with the OHS in general, too many of the occupational physician's activities are concentrated on sick leave consultation, while actually preventing possible sick leave should be his primary focus. It is the responsibility of the occupational physician together with the management team to develop and run screening programmes that detect the first symptoms of burnout or other work-related diseases in order to prevent sickness absence due to these diseases or disorders.

#### 4.6 General concluding paragraph

Overall it can be stated that it is crucial to bring back a spiritual (meaning – motivation – a sense of being) factor into the workplace in addition to a focus on competence and skills. A HBM environment and self-management is highly recommended in the prevention of professionals suffering from stress and burnout.

To cure people of burnout, a small-scale OHS service and professionals with a multidimensional approach and knowledge of the whole human being (values, beliefs), who are dedicated and who are able to intervene with compassion are needed.

***Attention, being there and communication*** are vital elements in this approach. Further research and evaluation of successful implementation of the principles of Business Spirituality (HBM)(de Blot) are required to conclude whether this approach is the ultimate answer to reducing sickness in organizations.

One important strength of this thesis is that the following has been assessed: the process quality and effectiveness of the Dutch occupational health care system on multiple levels, namely the micro (burnout), meso (OHS) and macro levels (national occupational health system).

Another strength is the introduction of the **Human Being Management concept** as the principal framework in this thesis. The Human Being Management approach is a necessary extension to Human Resource Management practices in order to improve the process quality of the OH services in particular and other organisations in general.

Additionally, this study is the first to carry out a systematic investigation of the process quality of the system, besides the usual customer-satisfaction ratings or sickness absence rates, by looking at structural and process quality indicators. Furthermore, the variety of the studies conducted for this thesis provides the reader with an extensive picture of the Dutch health care system. Multiple research methods have been applied, such as a qualitative design, a multiple case study design, literature review, cross sectional survey and an intervention study.

Admittedly, this thesis is also subject to certain limitations. The studies on differences between the in-house and external OHSs have the following difficulties. Firstly, that the responses are to some degree subjective, despite the participants in general being both objective and experienced. A second limitation is that all information, the questionnaires and supplementary documents, reflect only one viewpoint; i.e. that of the providers of the occupational health care. The investigation did not extend to collecting data from either employees or other professionals in the field. It is recommended that future research should pay special attention to the view of the employee.

In addition, sickness absence numbers of the OHS, according to many people *the indicator* of quality of care, are not considered in this thesis. However, a recent quantitative investigation on the differences between the in-house and external OHSs regarding sickness absence numbers yields no significant differences, indicating that the quality differences cannot be found on the outcome level.

Thirdly, there are the problems of internal validity normally associated with conducting non-experimental research. Finally, in the case study we only assessed four OHSs characterized as falling within the four quadrants of the Dutch occupational health care market. Although it may seem that our findings can be generalized to the other OHSs in the market, our findings only describe the four assessed OHSs.

The most important limitation of the study on the causes, consequences, and solutions of physician burnout is that it was not an overview of the complete literature concerning physician burnout and therefore not classified as a systematic scientific review.

Nevertheless, the most relevant studies are discussed and will provide the reader with a practical overview of the current developments concerning physician burnout, with special attention paid to the solutions.



The cross-sectional study on the treatment of burnout in two different OHS settings suffered the usual problems of causality and the fact that the outcome (recovery in days) was not measured objectively.

A significant limitation of the intervention study is its quasi-experimental nature; the classification of the participants into the two conditions was not based on randomization.

Despite these limitations, this thesis provides the reader with one of the first systematic, comprehensive and extensive overviews on the process quality of the Dutch occupational health care market in the context of the Human Being Management concept. The specific strengths and limitations of the included studies can be found in chapter 2 and 3 in the concluding paragraphs of these studies.

## Summary

The literature provides us with numerous possible diagnostic methods and solutions for the burnout issue; however the actual effectiveness of these interventions is low. The problem demands a multidisciplinary approach on both the individual level, focusing on the elimination of stress factors (e.g. reducing workload and work intensity), and on the organizational level (e.g. adaptation of structures, style of leadership and management, development of quality system models based on values). The example in this thesis of an intervention program within a group of physicians that concentrates on building up personal resources with the help a multidisciplinary team of trainers shows that even this can make a huge difference. The combination of such programs, with the emphasis on a structural and organizational level to improve working conditions and to increase the levels of control, can be effective in preventing and curing burnout. Additionally, human being management and focusing on values in a leaderships program (as case described in the introduction of this thesis) addresses another important issue: To consider the human being also in a spiritual context as part of greater concept and as a whole entity. To incorporate his/her personal goals, values, beliefs, and motivations. The philosophical point of view that is adopted in several self-management classes to discuss issues concerning the meaning of life is also necessary to treat burnout. Burnout is not only a recognized occupational disease it is also a matter of motivation and losing a sense of one's meaning in work, and therefore it is not enough to deal exclusively with stress tolerance practices in these programs. It was out of the scope of this thesis to provide an extensive recommendation for a burnout prevention program. We also looked at the role of the occupational physician toward treating burnout being *the* core professional concerning labor and health with one of his/her main responsibilities being the prevention of occupational diseases: A case regarding burnout treatment

where the specific role of the occupational physician is described being positioned in an internal or external service is remarkable. Especially, in the Netherlands, where every employee should have his own occupational physician, this role could be very significant. Nevertheless the service being internal or external to an organization seems to be a key factor. External services seem to delay the time of recovery significant.

It was observed once more that too many activities of the occupational physician are concentrated on sick leave consultation, while actually the anticipation on possible sick leave should be his primary focus (primary prevention). It is the responsibility of the occupational physician together with the management to develop and run screening programs that detect the first symptoms of burnout or other work-related diseases in order to prevent sickness absence due to these diseases or disorders. This leads to lower sick leave on the long term.

**'Small is beautiful'** might be the ultimate conclusion of this thesis. Working on a small scale is better for the occupational health professional and better for the patient. Keeping a sharp eye on the human being behind the worker is a recommendation of this thesis. As burnout is not a medical condition, burnout should be addressed on a higher level of professional competence. The entity *body, mind and soul* has to be addressed at the same time. A new paradigm would be to educate doctors (and other health-professionals) who can discriminate causes of burnout. A high sense of responsibility in the mind, heart and soul for the patient as a whole is essential. Spirituality and self-management on all (micro- meso- and macro) levels with a learning orientation and goal orientation seem to be under appreciated in Western working circumstances which are focused on the a 'Human Resource and Human Capital' approach. Human Being Management should encounter this, protected by all stakeholders.

In this thesis we emphasize on the spiritual (meaning – motivation – a sense of being - values) factor into the workplace in addition to a focus on competence and skills to create a healthy atmosphere to prevent sick leave and gain better results from the workforce.

A Human Being Management surrounding and self-management is recommended in the prevention of professionals suffering from stress and burnout. To cure people from burnout a small scaled occupational health care service and professionals with a multidimensional approach and knowledge of the whole human being (values, beliefs) are needed, who are dedicated and who are able to intervene with compassion.

*Attention, being there and communication* are vital elements in this approach. Further research and evaluation of successful human being management cases is required to conclude whether this approach gives the ultimate answer to reduce sickness (sick leave) in organizations.

|

## Samenvatting

Er vigeren vele opvattingen in de literatuur over burnout en mogelijke maatregelen en oplossingen voor dit cultureel bepaalde welZijnsprobleem; resultaten van begeleiding en behandeling worden nauwelijks vastgelegd of gemeten. Het probleem vraagt om een multidisciplinaire benadering op individueel, organisatorisch, sociaal-medisch en op politiek niveau. Focus op zowel vermindering van de individuele spanningsfactoren (b.v. verminderende werkbelasting en werkintensiteit) en van organisatorische maatregelen (b.v. aanpassing van structuren, stijl van management en leidinggeven, managementsystemen, ontwikkeling van kwaliteitsmodellen gebaseerd op waarden) blijken bij te dragen aan de effectiviteit van interventieprogramma's. In dit opzicht verschillen interne- en externe arbodiensten van elkaar. Een bedrijfsgeneeskundige dienst die in interventieprogramma's zowel oog heeft voor versterking van het persoonlijk leiderschap (doelen en persoonlijke kernwaarden) als geïntegreerd werkt aan de organisatie als geheel (zingeving) vanuit een multidisciplinair team blijkt het meest effectief te zijn. Een integraal programma dat uitgaat van een structurele benadering van persoon, organisatie en zingeving (zelfmanagement) blijkt burnout onder artsen te kunnen voorkomen. Beide benaderingen, het persoonlijk leiderschap en de organisatie, zijn onderdeel van het Human Being Management concept zoals in deze thesis wordt beschreven. Aandacht voor het gehele menselijke wezen en voor de persoonlijke doelstellingen, waarden, overtuigingen en motivatie blijken de kwaliteit van de balans in werk en leven en de kwaliteit van het welZijn goed te kunnen borgen. Hierin spelen zingevingvragen en spiritualiteit een rol van grote betekenis. Burnout is naast een erkende beroepsziekte een kwestie van motivatie en het verliezen van de betekenis en de zin van het werk. Het is daarom niet genoeg om uitsluitend de ervaren stress te behandelen. In deze thesis wordt de rol van de bedrijfsarts bij de preventie, herkenning en

begeleiding van burnout belicht. Juist in Nederland, waar elke werknemer zijn eigen bedrijfsarts zou moeten hebben, zou deze rol significant kunnen zijn. De bedrijfsarts is de specialist bij uitstek als het gaat over arbeid en gezondheid en zou daarom eindverantwoordelijk voor preventie van beroepsziekten moeten zijn. Dit komt onvoldoende uit de verf omdat de bedrijfsarts zich te veel bezig moet houden met verzuimbegeleiding en claimbeoordeling, terwijl eigenlijk het anticiperen op mogelijk arbeidsverzuim zijn belangrijkste aandachtsveld zou moeten zijn. Het is de verantwoordelijkheid van de bedrijfsarts om samen met de leidinggevende de eerste symptomen van burnout en van andere beroepsziekten te ontdekken om zo ziekteverzuim te bestrijden die gerelateerd zijn aan het welzijn en balans in leven en werk. 'Klein is mooi' zou de ultieme conclusie van deze thesis kunnen zijn. Werken aan kleinschaligheid is beter voor de patiënt en zijn of haar duurzame herstel en re-integratie. Een scherp oog houden op het menselijke wezen (Zijn) achter de werkende mens (Doen) is het adagium. Aangezien burnout geen zuivere medische conditie is, maar cultureel bepaald wordt, is verdere diepgaande studie en samenwerking tussen organisatie- en levensbeschouwelijke wetenschappen en de geneeskunde aan te bevelen. Daarbij rekening houdende met de entiteit van lichaam, geest en ziel. Vanuit een nieuw paradigma zouden zo artsen en andere deskundigen kunnen worden opgeleid die adequaat burnout en haar oorzaken kunnen behandelen en voorkomen. Business spiritualiteit, spiritueel leiderschap en zelfmanagement op alle niveaus (micro, meso en macro) van een organisatie met oprechte aandacht voor de kernwaarden van de werkende mens en de organisatie is een goede remedie tegen burnout en verbetert het werkplezier en de productiviteit.

## **Publications and manuscripts on which this thesis is based**

### **A**

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders-IV-TR. 1994.

Amstel van, R. en Putten van, D. Arbodienstenpanel: rapportage vierde peiling. Ervaringen met de dienstverlening. Hoofddorp: TNO. 2002.

Ankone et al. Burnout bij artsen bijna verdubbeld. Medisch contact 1999; 54: 494-97

Antheunis I. Interne Arbo-diensten doen het beter, Faculteit bedrijfskunde, Universiteit van Amsterdam. 2005.

### **B**

Bakker, A., Schaufeli, W.B., Dierendonck, D. van. Burnout: prevalentie, risicogroepen en risicofactoren. In: Houtman, ILD, Schaufeli, W.B., Taris, T. (red.) Psychische vermoeidheid en werk. NWO/Samsom, Alphen aan den Rijn. 2000.

Bakker, A., & Schaufeli, W. Burnout contagion process among teachers.

Journal of Applied Social Psychology, 2000, 56, 2289-2308. Bakker et al

Burnout among Dutch midwives. Midwifery December 1996;12(4):174-81

Beroepsprofiel van de bedrijfsarts. Eindhoven: Nederlandse Vereniging voor Arbeids- en bedrijfsgeneeskunde. 2004.

Black, N. Why we need observational studies to evaluate the effectiveness of health care. BMJ Journals 1996: 312; 1215-1218.

Blot de, de Chauvigny SJ, Business spiritualiteit als kracht voor

organisatievernieuwing, op zoek naar de mystiek van het zakendoen.

Universiteit Nyenrode, ISBN 90 7331493-3.

Buijs, J.A. Innoveren is mensenwerk, M&O 1983, september/oktober pp.

316-332.

Burnin. Wat is burnout eigenlijk?; about 2 screens. Monnikendam: Artikelen  
Carla Vredeveld; [cited 2005 dec 9]. Mediator; feb 2003; jaargang 14;  
nummer 1.

## C

Centraal Bureau voor de Statistiek (CBS). Statweb.

Arbeidsomstandigheden: werk en gezondheidsaspecten 2001. Centrum  
Gezondheidsbevordering op de werkplek "Werkstress, strategieën,  
scenario's, overeenkomsten" aug 1999 Chambers et al Predicting mental  
health problems in general practitioners. -Occup. Med. 1994; vol 44: 212-  
216Crul Zuinig op elkaar. Medisch contact 1999;54: 487Cuevas de las et al  
Burnout and reaction to stress. Med Univ Navarra 1997; 41(2):10-8,

## D

Dale van, Hedendaags Nederlands 3<sup>e</sup> druk (2005) Van Dale Lexiografie.

Deckard G, Meterko M, Field D. Physician burnout: an examination of  
personal, professional, and organisational relationships. Medical Care 1994;  
32: 745-754. Deary et al Models of job-related stress and personal  
achievement among consultant doctors. British Journal of Psychology. 1996

Feb; 87(Pt 1): 3-29,. Deurzen van Burn-out en stress bij artsen: hoe te  
voorkomen. van Deurzen LVC aug 1999

Dijck JJJ van, Hecke AF van, Seegers HJJL. HRM-zakboekje, pp. 170.  
Arnhem: Koninklijke PBNA. 2001.

DiMatteo MR, Sherbourne CD. et al. Physicians' characteristics influence  
patients' adherence to medical treatment: Results from the Medical  
Outcomes Study. Health Psychology 1993; 12: 93-102.

Dixhoorn, JJ van (1998). Ontspanningsinstructie. Principes en oefeningen.  
Maarsse: Elsevier/Bunge.

Donabedian, A. The quality of care. How can it be assessed? J Am Med  
Assoc 1988: 260; 1743-1748.



Donabedian, A. The seven pillars of quality Arch Pathol Lab Med 1990; 114; 1115-1118.

Dweck CS, Legget, EL. A social-cognitive approach to motivation and personality. Psychological Review 1988; 95: 256-273.

## **E**

Elit L, Trim K et al. Job satisfaction, stress, and burnout among Canadian gynaecologic oncologists. Gynaecologic Oncology 2004; 94: 134-139.

Erp van N. en Bijl R. Richtlijnen sociaal – medische begeleiding bij psychische klachten, , NcGv, 1996.

## **F**

Firth-Cozens J. New stressors, new remedies. Occupational Medicine 2000; 50: 199-201. Felton JS Burnout as a clinical entity - its importance in health care workers. Occup Med 1998;48: 237-250 FNV "De stress te lijf" brochure, jan 1998

Freudenberger, HJ. Staff burnout. Journal of Social Issues, 1974, 30, 159-165.

Freudenberger HJ. Burnout: een maatschappelijk verschijnsel. In: HM van der Boer & J. Vis (red.). Burnout en werkstress, 3<sup>e</sup> druk. Lisse: Swets & Zeitlinger. 1991.

## G

- Gent B van, Zee H van der. Handboek Human Resource Development. Profiel van een vakgebied. Den Haag. 2001. Goldberg et al Burnout and its correlates in emergency physicians: 4 years' experience with a wellness booth. Acad Emerg Med. 1996 Dec; 3(12): 1156-64
- Greenglass, E. Burnout and gender: Theoretical and organizational implications. Invited paper for Canadian Psychology, 1991, 32, 562-572.
- Gundersen L. Physician burnout. Annals of Internal Medicine 2001; 135: 145-148. Guntupalli et al Burnout in the internist-intensivist. Intensive Care Medicine 1996 Jul; 22(7): 625-30

## H

- Hardjono TW et al, Procesbenadering en SqEME benadering, Kluwer, ISBN 878-90-13-04790-5.
- Hardjono TW en Bakker RJM, Management van Processen, Kluwer, ISBN 81303444-6.
- Hek van der et al Occupational stress management programmes: a practical overview of published effect studies. Occup. Med. 1997; vol 47: 133-141
- Higashiguchi et al The development of the Japanese version of the MBI, and the examination of the factor structure. Japanese Journal of Hygiene July 1998; 53(2): 447-55
- Hisch et al Physician career management: organisational strategies for the 21st century, Physician Exec 1999; 25: 30-35
- Hobfoll, SEStress, culture and community, Plenum, 1998
- Hoogduin CAL Binnen tien jaar kan burnout verdwenen zijn. Medisch contact 1999; 54: 1116-18
- Hoogduin CAL, Griendt JMTM van de, Verdellen CWJ. Omgaan met werkstress en burnout, 1<sup>st</sup> druk. Amsterdam: Uitgeverij Boom, 2006.

Hoogduin CAL, Jackson, SE., & Schuler, RS. Understanding human resource management in the context of organizations and their environments. Annual Review Psychology 1995 46, 237-264.

Hosman CMH, Veltman NE Prevention in mental health - A review of the effectiveness of health education and health promotion.

Houtman ILD, Schaufeli WB, Taris TW. Risicogroepen en risicofactoren bij vermoeidheid onder werkenden. Tijdschrift Bedrijfsgeneeskde. 2001;9;123-129.

Hudson Report 2006 "Highest figure for employee burnout in Hong Kong reported in Asia". In comprehensive Hudson Report Released for Quarter Two 2006.

Humphris et al Burnout and stress-related factors among junior staff of 3 dental hospital specialities. British Dental Journal 1997; 183: 15-21.

## **I**

Integrated Care, A Guide for policy makers – Alliance for Health and the Future 2005.

## **J**

Jackson, SE., & Schuler, RS. Understanding human resource management in the context of organizations and their environments. Annual Review Psychology, 1995, 46, 237-264.

## **K**

Karaian, J. Sick of it: European companies can find plenty of cost savings if they address burgeoning absenteeism problem. CFO Europe Magazine. 2003.

Kemenade van E, Certificering, Accreditatie en de Professional, Proefschrift ISBN 978-90-5972-304-7.

Kinjerski, V. Rethinking your work. 11 nov 2009.

Kluger MT, Townend K, Laidlaw T. Job satisfaction, Stress and burnout in Australian specialist anaesthetists. *Anaesthesia* 2003; 58: 339-345.

Krimpen van H., "Blijf je werk de baas" sept 1998

## **L**

Labour Condition Regulation 1998. The Netherlands.

Lambert E.G., Cluse-Tolar T and Hogan N.L. This job is killing me, the impact of job characteristics on correctional staff job stress. *Understanding burnout*.

Lawrence, J. Stress and doctor's health. *Australian Family Physician*, 1996: 25; 1249-1256.

Lijphart, A. The comparable-cases strategy in comparative research. *Comparative Political Studies* 1975: 8; 158-177.

## **M**

Marcelissen, FH, & Weel, AN. Certification and quality assurance in Dutch occupational health services. In *J Occup Med Environ Health* 2002: 15; 173-177.

Marek A. Professional burnout: Recent developments in theory and research (pp. 33-51). Washington, DC: Taylor & Francis.

Martini S, Arfken CL et al. Burnout comparison among residents in different medical specialties. *Academic Psychiatry* 2004; 28: 240-242.

Maslach, C. Burnout. *Human Behavior*, 1976:5; 16-22.

Maslach, C., Schaufeli, WB, & Leiter, M. Burnout. *Annual Review of Psychology*: 2001; 52, 397-422.

Maslach, C., Schaufeli, W.B., & Leiter, M.P. Job Burnout. *Annual Review of Psychology*, 2001: 52; 397-4.

Maslach, C., & Jackson, SE. *Maslach Burnout Inventory. Manual* (2<sup>nd</sup> ed.) Consulting Psychologists Press, Palo Alto. 1986.

Maslach C. Understanding burnout: Definitional issues in analyzing a complex phenomenon. In W. S. Paine, editors. Job stress and burnout. Beverly Hills, CA: Sage, 1982; pp 29-40.

McCraty et al Impact o/a new emotional self-management program on stress, emotions, heart rate variability, DHEA and cortisol. Integr Physiol Behav Sci 1998; 33: 151-170

Mediator, jaargang 14, nummer 1, februari 2003; Internationale erkenning definitie burnout. Occupational Health Care Provision of Services. Appendix 4: Analysis Occupational Health Care Provision of Services 2004.

Melamed et al J. Chronic burnout, somatic arousal and elevated salivary cortisol levels. Psychosom Res 46 1999 591-8

Miller, P, Rossiter, P, Nuttal, D. Demonstrating the economic value of occupational health services. Occup Med. 2002; 52; 477-483.

Ministerie SZW "Conceptnota inzake beperking van het ziekteverzuim alsmede van de instroom in de WAO" S.v.A., juli 1999 Nota

Ministerie SZW "Arboconvenanten nieuwe stijl: beleidsstrategie voor de komende vier jaar", jan 1999

Moors S. Stress en werk, oorsprong en aanpak NOVA, 1995

## **N**

Nakamura et al Natural killer cell activity and NK cell subsets in workers with a tendency of burnout. J Psychosom 1999;Res 46: 569-78

Nederlandse Vereniging voor de Arbeids- en Bedrijfsgeneeskunde (NVAB). Richtlijnen voor bedrijfsartsen 2000. Handelen van de bedrijfsarts bij werknemers met psychische klachten.

Nicholson PJ. Occupational health in the European Union. Occup Med. 2002; 2; 80-84.

Nicholson PJ. Occupational health services in the UK-challenges and opportunities. Occup Med. 2004; 54; 147-152.

## O

Offman, D.D. *Bezieling in organisaties* ISBN 906325491-1 Servire  
Oostrom C. *De modererende rol van doeloriëntatie in de relatie tussen  
werkkenmerken en verschillende vormen van welzijn* [The moderating role  
of goal orientation in the relationship between work characteristics and  
well-being]. Master thesis, Industrial and Organisational Psychology 2005,  
University of Tilburg.

Ouden den, E. *Development of a design analysis model for consumer  
complaints: Reveiling a new class of quality features*. 2006 Proefschrift,  
Eindhoven. Universiteitsdrukkerij, Technische Universiteit Eindhoven ISBN  
90-386-0626-5, 2006.

Ouden den, E. *Inaugurele Rede, TUE, Faculty Industrial Design: Het  
ontwerpen van (meer) waarde*. 23 oktober, 2009.

## P

Pines AM. *Burnout: An existential perspective*. In: WB Schaufeli, C Maslach  
& T Marek (red.).

*Professional burnout: Recent developments in theory and research* (pp. 33-  
51). Washington, DC: Taylor & Francis.

Pruessner et al *Burnout, percieved stress, and cortisol responses to  
awakening*. *Psychosom Med* 1999; 61: 197-204

Pullen D, Lonie C et al. *Medical care of doctors*. *Medical Journal of Australia*  
1995; 162: 481-482.

## R

Raad voor Maatschappelijke Ontwikkeling (RMO) *Werken aan balans*.

*Remedies tegen burn-out*. Den Haag 2002

Ravelli, DP. *Deinstitutionalisation of mental health care in the Netherlands  
from 1993-2004*. Nieuwegein: Budde Elinkwijk grafische producties; 2004.

Proefschrift, ISBN 90-9019167-4.

Ramirez et al Mental health of hospital consultants:the effects of stress and satisfaction at work. - Lancet 1996 Mar 16; 347(9003):724-8

Rasanen, K, Husman, K, Peurula, M, Kankaanpaa, E. The performance follow-up of Finnish occupational health services. International Journal for Quality in Health Care 1996; 9: 289-295.

Royal Medical Society of Norway, Soria Moria. New Work, New Values. Proceedings IFOH Bi Annu Conf, Oslo, 2000.

Riley GJ. Understanding the stresses and strains of being a doctor. Medical Journal of Australia 2004; 181: 350-353.

## **S**

Sanders. L. et al. De patient als blinde vlek. Uit: Misschien wisten zij alles 313 verhalen over de eekhoorn en andere dieren, Toon van Tellingen, Querido, 1995 ISBN 9045102552.

Schabracq M.J., J.A.M. Winnubst, C. Cooper, Handbook of work and health psychology, Wiley, Chichester, 1996.

Schaufeli WB, Enzman D. The burn-out companion to study and practice: a critical analysis. London: Taylor & Francis, 1998.

Schaufeli, WB, & Buunk, BP. Burnout: An overview of 25 years of research theorizing. In MJ Schabracq, JAM Winnubst, & CL Cooper (Eds.). The Handbook of Work and Health Psychology (pp 383-425). John Wiley & Sons, Ltd. 2003.Schaufeli WB, Salanova M., Gonzalez-Romá. V. & Bakker, A.B. The measurement of engagement and burnout and: A confirmative analytic approach. Journal of Happiness Studies, 3, 71-92. 2002.

Schaufeli WB, Dierendonck D van. Utrechtse burnout schaal: handleiding. Lisse: Swets en Zeitlinger. 2000.

Schiffedercker et al Is drug dependence an occupational risk for physicians? Fortschritte der Medizin 1996 Oct. 20; 114 (29):372-3, 376

Schmidt-Rheinwald The cortisol response to awakening in relation to different challenge tests and a 12-hour cortisol rhythm *Life Sciences* 1999; 64(18):1653-60

Seligman, SEP, & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 2000;55; 5-14

Shirom et al Effects of work overload and burnout on cholesterol and triglyceride levels: the moderating effects of emotional reactivity among male and female employees. *J Occup Health Psychol* 1997 Oct; 2(4):275-88.

Smets et al Burnout onder specialisten neemt toe. *Medisch contact* 1999; 54: 1048-51 *The Lancet* 1994

Smets EMA, Visser MRM, Oort FJ. Perceived inequity: Does it explain burnout among medical specialist? *Journal of Applied Social Psychology* 2004; 34: 1900-1918

Social and Economic Council of the Netherlands (SER). Advice no. 04/03: Occupational Health Care Provision of Services. Appendix 4: Analysis Occupational Health Care Provision of Services 2004.

Spickard A, Gabbe SG, Christensen JF. Mid-career burnout in generalist and specialist physicians. *Journal of the American Medical Association* 2002; 288: 1447-1450.

Statistics Netherlands (CBS). Statistics Occupational health services and occupational health advice agencies. Voorburg; 2003.

## T

The Congress Scientific Program of the 27th ICOH International Congress on Occupational Health Iguassu Falls, Brazil, february 23-28, 2003.

The European Quality Convention 2003. 47<sup>th</sup> Annual congress. Work-life Balance in a new era: Human being management. The Hague, June 2003.



Thomsen et al Feelings of professional fulfillment and exhaustion in mental health personnel: the importance of organisational and individual factors. - Psychotherapy and psychosomatics 1999; 68(3):157-64,.

TNO Work. Report 2003 Little businesses and occupational health. "I don't want an answer but a solution".

## V

Valk de MMA, Werner A. Burnout in medical professionals: A cost effectiveness study of a multidisciplinary intervention program. Nederlands Militair Geneeskundig Tijdschrift 2003;56:21-23.

Valk de MMA, editor. Burnout, Emotional Exhausting Syndrome (EES), uitputtingssyndroom met depressiviteitskenmerken: 1999: The Congress Scientific Program of the 27th ICOH International Congress on Occupational Health; 2003 February 23-28; Iguassu Falls, Brazil.

Valk de MMA et al. De Ziel van Werk, Ten Have, ISBN 9789025959135

Valk de MMA De zin van zijn: Voedsel voor de ziel. Burnout en stress: Een model vrij naar Plato. 2004: Uitgeverij Meinema Zoetermeer ISBN 978902113616.

Valk de, MMA, & Meyer, OMT (2002). Human being management voor een betere balans. Nederlands Tijdschrift voor de Bedrijfs- en Verzekeringsgeneeskunde, 2, 49-52.

Valk MMA de. Inleiding Organisatie en Gezondheid 3, 's Hertogenbosch: BeNeLux- Universitair Centrum. Arts en Bedrijf met een actueel slotwoord. Syllabus werkcollege Benelux Universitair Centrum 2001.

Valk de MMA, Management van werkgebonden stress bij een verzekeringsmaatschappij: Een systematische benadering (1993-1994)

Valk de MMA, Management van werkgebonden stress. In: Arts en Bedrijf, 1996.

Valk de MMA, Op losse schroeven; Verplichte aansluiting bij arbodienst vervalt waarschijnlijk. Medisch Contact 2003; 50: 1957-1958.

- Valk de MMA & Meier OMT Human Being Management. Ned Tijdschrift voor de Bedrijfs- en Verzekeringsgeneeskunde. 2002: 2; 49-52.
- Valk de, MMA, Oostrom, C, & Schrijvers, AJP. The assessment of occupational health care in the Netherlands (1996-2005). 2006: Occup Med (accepted for publication).
- Valk de MMA, Oostrom C. en van Assouw, UHM, The X factor of the Occupational Health Care Services in The Netherlands, NMGT, july 2007 144-148.
- Valk de MMA & Oostrom C. Van papieren dokter naar behandelaar: De rol van de bedrijfsarts nader onderzocht. Ned Militair Geneeskundig Tijdschrift. 2005: 58; 181-185.
- Valk de MMA. Zelfmanagement voor de ziel. Spiritualiteit voor een gezond en gelukkig leven Zoetermeer. Uitgeverij Meinema; 2007 ISBN 9 879021141480.
- Valk de MMA, Zorgen en Zijn, Filosofie jaargang 16 Nummer 5, oktober/november 2006.
- VandeWalle D, Brown SP et al. The influence of goal orientation and self-regulating tactics on sales performance: A longitudinal field test. Journal of Applied Psychology 1999; 84: 249-259.
- Geld van der, A., & De Valk, MMA., (2001) Bijdrage 4: Ontwikkeling van mens, werk, en vrije tijd. In A van Geld (ed.). Balans in ons leven (pp 188-196). Tiel: Uitgeverij Lannoo.Veldhoven van M. Psychosociale arbeidsbelasting en werkstress. Swetz & Zeitlinger, 1996
- Visser MRM, Smets EMA et al. Stress satisfaction and burnout among Dutch medical specialist. Canadian Medical Association Journal 2003; 168: 271-275.

## **W**

- Wachter RM An introduction to the hospitalist model. Annals of Internal Medicine 1999 Feb 16; 130(4 Pt 2): 338-42

Weel, ANH, van der Beek, AJ, Kroon, PJ, Verbeek, JHAM, & van Dijk, FJH. Recent changes in occupational medicine in the Netherlands. *Int Arch Occup Environ Health*. 1999; 72; 285-291.

Winnubst JAM en MJ Schabracq, Handboek arbeid en gezondheidpsychologie, Lemma, 1992  
Westman et al Effects of a respite from work on burnout: vacation relief and fade-out. - *Journal of applied psychology*

Wierdsma AFM, Roekel-Kolkhuis Tanke IR van. "Het verlangen naar de maakbare medewerker." *M & O: Tijdschrift voor Management en Organisatie* 200;(6);10/11;5-24.

Wright, PM., & McMahan, GC. Theoretical perspectives for strategic human resource management. *Journal of Management* 1992;18; 295-320.

## **Y**

Yin, R. K. *Case study research: Design and methods*. 2003: London, UK: Sage publications.

## **Z**

Zwerts C, Schaufeli W et al. Burnout en prestatie in intensive care units [Burnout and performance in intensive care units]. *Tijdschrift voor Sociale Gezondheidszorg* 1995; 73: 382-389.

## **URL's**

<http://www.burnin.nl>

<http://www.cbs.nl/NR/rdonlyres/C14006BC-0F2A-42AD-8B35-D499CFEB522D/0/2005k3v4p18art.pdf>

<http://www.depers.nl/binnenland/194270/Meer-huisartsen-met-burn-out.html>

[www.nvab.artsennet.nl](http://www.nvab.artsennet.nl). <http://www.hse.gov.uk/>

**Definitions:**

**Health**– Feeling good and being able to cope with the demands of one's self and the outside world.

**Well-being**– is the unique state in which we can cope with our beliefs, our values and dreams in relation to the demands of the outside world, feeling appreciated.

