Physician Burnout in General Practitioners Reflections upon Prevention and Treatment

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*Abstract--*Austrian general practitioners in the medical profession were the subject of a survey based upon the Maslach Burnout Inventory and supplementary items (Tirol, 95 respondents). The term "burnout" refers to emotional and physical exhaustion, apathy, cynicism, a reduced sense of work satisfaction and social withdrawal, which – apart from internal factors – may be caused by work overload, a lack of "control" options, i.e. selfdetermination, inadequate financial compensation, a breakdown of social community, absence of fairness or conflicting values. The boundary between the concepts of burnout and depression is hard to demarcate. The former originated in the field of psychoanalysis

but was subsequently expanded through insights from sociology. More than one third (35.8%) of respondents considered themselves to be at risk for burnout, with 27.2% showing elevated values for emotional exhaustion, 3.2% for depersonalisation and 10.0% for cynicism. The average values lay outside of the range which might warrant therapeutic intervention, however. The study did not reveal any noteworthy correlations based upon either age or gender (p > 0.05). Medical professionals licensed under the national health insurance plan tended to evidence higher degrees of burnout than did professionals practicing outside this framework ("physicians of choice"), as did those practicing in smaller communities.

Availment of supervision services and participation in depthpsychologically oriented Balint groups had a favourable effect on the degree of burnout (10% lower values for cynicism, p < 0.01; -10%; 6.5% higher values for personal accomplishment, p < 0.01).

The results were compared with other studies about general practitioners and studies about other occupational groups.

Specifics of physician burnout are presented and discussed including various prevention measures and treatment.

It seems necessary to facilitate and implement further study, using standardized as well as larger sample sizes. In order to find sustainable methods to fight burnout, long-term surveys are considered to be indispensable.

This article is based on an initial study report published in German in the Wiener Medizinische Wochenschrift [1]. The authors thank the WMW for their permission to publish the present expanded version of this report. The research work was carried out at the Interuniversity College Graz, Castle of Seggau, Austria within the framework of a study program focusing on group analysis [2,3].

*Keywords--*burnout, stress, depression, general practitioner, prevention, treatment

I. INTRODUCTION

A. Burnout

In 1960, a novel by the British author Graham Green entitled "A Burnt-Out Case" appeared featuring a protagonist who suffered from an emotional state reminiscent of the physical condition characterising a person crippled by leprosy [4]. In 1974, the German-American psychoanalyst Herbert J. Freudenberger coined the term "burn-out" [5] after having experiencing this type of condition himself through his own work. After gaining currency among American depth-psychologists and health scientists, the term has established itself in everyday speech. It is used as a synonym for general fatigue, loss of vitality, alienation, depersonalisation and embitterment.

Freudenberger described the occurrence of burnout in other social professions as well, where the use of the term was expanded on in particular by Christina Maslach and Ayala from 1976 on [6]. From the many interviews and studies she conducted with burnout victims, C. Maslach concluded that three aspects in particular characterise this condition in social professionals: emotional exhaustion and depletion, a plethora of negative feelings and perceptions in relation to patients or clients and nagging doubts about one's professional competence [7].

In his 1977 study "The helpless helpers," the German psychoanalyst Wolfgang Schmidbauer described what he referred to as the "helper syndrome": an interdependence between helpless individuals and their helpers [8]. In his work Schmidbauer oriented himself to Sigmund Freud's work on the subject, who used the concepts of "narcissistic slight," "helper-client collision" and "countertransference" to explain that occupational ailment of helpers who are helpless without someone to help. Fifteen years after Schmidbauer's study appeared, the remedial teacher and clinical psychologist Jörg Fengler expanded Schmidbauer's concept of the helping personality. He viewed Schmidbauer's explanations as needing more empirical proof and saw the typical work environment of helping professionals as a contributing factor to professional burnout. Fengler described this environment as marked by over-identification, selective perception, impoverishment of interests and communication desolation in the social environment, which, as he argued, leads to mental aridity and ossified gestures [9]. Psychoanalytical and sociological insights converge here.

In the area of burnout research no generally valid definition of the concept exists today. The distinction between and demarcation from such adjacent concepts as depression and stress reaction prove to be difficult [10]. It might be useful to keep in mind that the concept of "burnout" originated in a psychoanalytical, depthpsychological context rather than a psychiatric one.

According to Maslach & Jackson, burnout is a syndrome physical emotional involving and exhaustion. depersonalisation (i.e., apathy or cynicism), a reduced sense of work satisfaction and in part social withdrawal from work [11]. As Maslach & Leiter claim, the causes lie more in the work environment than the individual. They can be attributed to imbalances between the human being and his or her work. According to this, burnout is caused by the following factors: work overload, lack of "control" options, inadequate compensation, a breakdown of social community, absence of fairness and contradictory values [12].

In burnout prevention, (psycho-)analytic group concepts are employed [13] which are rooted in cross-fertilisation between psychoanalysis and sociology [14].

There are numerous suggestions of treatment methods for persons who already suffer from severe symptoms of burnout, many of those methods concentrate on psychotherapy. Body-psychotherapeutic treatment seems to be a promising approach. Recent publications show that body-oriented psychotherapeutical techniques can support a progressive loosening of the inner sensation of overcharge and help the individual to find the way back to efficient auto-protective impulses in order to feel secure and competent (again) [15,16].

B. General medicine

Health care professionals are supposed to be at a high risk for developing burnout symptoms because they are involved in emotionally stressful situations and are confronted with various demands from patients, collegues, health insurance system etc. [17].

General medicine includes a wide spectrum of tasks. The family physician serves as an initial point of contact, a supervisory coordinator of patients' cases and a person who accompanies his or her patients from birth to death, an expert and a manager. Such persons are subjected to extraordinary psychosocial and organizational stress factors in their daily professional life. Professional literature cites in particular time pressure, a high degree of administrative effort, strenuous patient contacts, round-the-clock emergencies and conflicts with health insurance companies [18-22]. Due to their professional stress situation, physicians are particularly prone to developing emotional problems, substance dependencies and partnership problems [23]. Studies show that the burnout rate among physicians in western countries is about 20%. Half of all physicians are viewed to be at risk [24,25].

Only a small amount of data are available for the target group of general practitioners in Austria. The first and as yet only investigation on prevalence of burnout among Austrian family physicians was conducted in the years 1994 and 1995 [21,26]. Thus in the study at hand the occurrence and manifestation of burnout symptoms among established general practitioners in Tirol were investigated. Moreover, connections between burnout and demographic variables, the existence of a contract with health insurance companies, the size of the practice's location and availment of supervision were examined and a personal assessment of risk for developing burnout was requested.

II. METHODS

The study entails a quantitative, anonymous collection of data in the form of a single assessment. The measuring tool it employed was the German version of the Maslach Burnout Inventory, *MBI-D*, in the edition drawn up by Büssing & Perrar [27], as well as the *MBI-GS* (General Survey), following the original by Schaufeli, Leiter, Maslach & Jackson [28], and in German translation by Büssing & Glaser [29]. In addition the following data were collected by means of a questionnaire: gender, age, existence of a health insurance contract, size of location of practice, availment of supervision, personal assessment of risk for developing burnout.

The questionnaire, a cover letter and a self-addressed envelope were sent by mail to 230 (of approx. 540) established general practitioners in late January 2007. The initial study population was representative in terms of gender, existence of a health insurance contract and size of location of practice. The period of response was approximately one month.

The data were evaluated after collection was completed using variance, frequency and correlation analyses (SPSS). The significance level was defined as $p \le 0.05$. According to Glaser [29], the rating scale for *emotional exhaustion*, *depersonalization and cynicism* with values ≥ 4.0 and the rating scale for *personal accomplishment* with values ≤ 3.0 are to be classified as relatively high, thus giving indication of need for intervention.

The results of the study at hand were compared with studies on executives of a multi-national electronics group [28] as well as judges in Lower Austria [30] and nursing staff in a Southern-German hospital [31] in terms of the approximate ratings given.

III. RESULTS

95 general practitioners from Tirol returned the questionnaire and in doing so participated in the study; this corresponds to a response rate of 41.3% for the posted questionnaire. The distribution of social variables for the random sample are shown in Table 1.

Table 1	
Social variable	(%, N=95)
male	69.5
female	30.5
under 44 yrs. of age	27.4
age 45 - 52	36.8
age 53 and older	34.7
Health insurance contract	66.3
No health insurance contract	31.6
Location of practice < 5,000	
inhab.	44.3
Location of practice > 5,000	
inhab.	55.8
Table 1: Social variables	

Over a third (35.8%) of those who participated in the study at hand viewed themselves according to their own personal assessment as being "at risk for burnout." On the six-grade scale the average values for all physicians were 3.2 ± 1.0 for *emotional exhaustion*, 2.0 ± 0.8 for *depersonalization*, 2.4 ± 1.1 for *cynicism* and 5.1 ± 0.6 for *personal accomplishment* (Fig.1).

	1	2	3	4	5	6
emotional exhaustion			\bigcirc			
depersonalization		\bigcirc				
Personal accomplishment					\bigcirc	

Fig.1: burnout parameters for established general practitioners.

1-6 = scaling of manifestation; circles = placing of average values for the universe of 95 persons; gray shaded = values which according to Glaser [29] indicate a need for intervention. Further explanations in the text.

Thus the average values of the universe lie outside of the areas which would indicate a need for intervention.

If one considers the positioning of individual respondents one can see that increased (poor) burnout values were found in 27.2% of the physicians in terms of *emotional exhaustion*, 3.2% in terms of *depersonalization* und 10.0% in terms of *cynicism*. In approx. 4% of physicians, increased burnout values were found on the scale for *personal accomplishment*.

The correlations of the parameters are naturally high (with p < 0.01 for each).

No significant connections were shown between the features under investigation and variables of age and gender (p > 0.05).

In contrast, health-insurance contracted physicians (Tirol District Health Insurance Company) had a tendency towards poorer values than did "physicians of choice" in regard to *emotional exhaustion MBID* (p < 0.05, the difference amounts to 0.45 points of the six-grade scale, i.e. 7.5%), and *depersonalization* respectively (p < 0.05; 6.3%).

Physicians with practices in relatively small communities were more likely to suffer from burnout symptoms than were their colleagues in municipal areas (*depersonalization* p < 0.05; 5.5%).

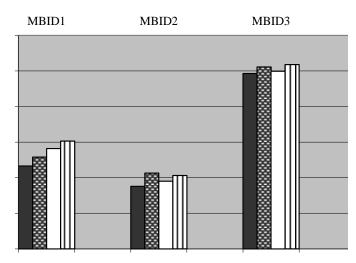
Another result of the study was that availability of supervision or participation in a depth-psychologically oriented Balint group had a favourable influence on manifestation of burnout (less pronounced occurrence of *cynicism*, p < 0.01; the different amounted to 10%; higher degree of *personal accomplishment MBIGS*, p < 0.01; 6.5%).

IV. FURTHER RESULTS AND DISCUSSION

Almost one out of every 3 physicians ascertained occurrence of emotional exhaustion, one out of every 10 cited cynicism and some individuals spoke of *depersonalization*. In comparison to other studies on general practitioners [22,32,33], the physicians from Tirol (2007) evidenced a particularly high degree of emotional exhaustion.

In the course of the present study the results of the Tyrolian physicians were compared with data material collected from general practitioners from all parts of Austria attending a





■female GP A06 ■male GP A06 □female GP T07 □male GP T07

Fig.2: General practitioners Tirol 2007 (GP T07) vs. general practitioners Austria 2006 (GP A06)

Physicians with a panel practice or a practice in a rural area tended to show a greater "risk of burnout." Availment of supervision correlated the most clearly with a lower degree of burnout.

The professional group of physicians is caught between high demands on the part of patients, politicians and health insurance companies on the one hand and on the other, little possibility for exerting influence [34]. Significant connections with the causes for development of burnout syndrome as formulated by Maslach & Leiter [12] were shown here.

In the comparison of approximate rating levels with those of other professional groups (executives of a multi-national electronics group [29] and judges from Lower Austria [30]) the physicians perform well, however. They obtained the best values of the three professional groups on the scales for *depersonalization* and *personal accomplishment*. On the scale for *emotional exhaustion* the physicians evidenced poorer burnout values than the executives did and somewhat better values than those ascertained for the judges.

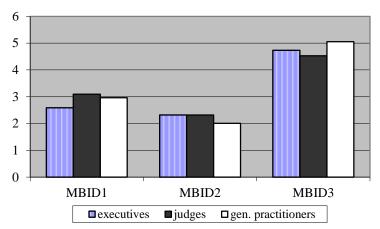


Fig.3: results of general practitioners Tirol as compared with other professional groups

This study on physicians is thoroughly comparable to another investigation conducted at the Interuniversity College [31], namely on hospital nursing staff, which obtained average values of 3.1 for *emotional exhaustion*, 2.1 for *depersonalization* and 4.7 for *personal accomplishment* (Fig. 2) on the six-grade scale.

	1	2	3	4	5	6
emotional exhaustion			\bigcirc			
depersonalization		\bigcirc				
personal accomplishment				()	

Fig.4: burnout parameters for hospital nursing staff in a Southern German hospital. Explanation below Fig.1 and in text.

The results at hand for the physicians were qualified by the relatively low number of cases (95 respondents) and in addition due to the fact that the representativeness of the community of physicians as a whole was ensured in terms of the number of people contacted but not in terms of rate of respondence. Furthermore, the representativeness was qualified by the fact that it was not clear whether the manifestation of burnout among persons who participated in the questionnaire was lower, equivalent or higher than for persons who did *not* participate.

Physician burnout has been widely explored, yet there are many questions still to be answered. In an article on burnout in physicians published in a German medical journal, Bergner [34] argues that physicians must learn to allow themselves to be ill. Colleagues and next of

Professional groups - Burnout scales

kin do not intervene until burnout has reached an advanced stage [25,34].

In professional journals it is emphasized that "burnout in physicians" is a topic often placed under a taboo, not only at the individual level but also by health care organizations, medical associations, health care policy-makers and society at large [25,35,36]. There might be a causal connection between this problem and the fact that in the study at hand almost two thirds (64.2%) of the respondents answered the question "Do you consider yourself to be at risk for burnout?" with "no," i.e. that they perhaps failed to recognize a problem.

Nelting [37] suggests that fear of death might be a significant stress factor for physicians. Most of them never learnt to deal with their inner fears and therefore tend to inwardly suppress the possibility of dying. These physicians are only able to maintain their psychic and emotional stability by denying problems, weaknesses and diseases. This could be the cause for their conviction that they themselves cannot fall ill. Nelting believes that these physicians are not able to sense their own emotional and physical overload and that therefore many of them die of cancer, myocardial infarctions or commit suicide[37].

As a young resident in a hospital, a doctor learns to work nonstop and to ignore his/her emotions and fatigue. Workload and lack of possibilities to reflect this situation leads to the doctor's sticking to his/her professional role and often living behind a professional mask [37].

Nelting [37] lists the following burnout-risk factors for physicians: missing emotional and social competence; one's own mental and physical state is not perceived correctly; doctors are permanently confronted with death; inner fears are suppressed; doctors bear too much responsibility; 'breaking points' are overstepped too often.

In October 2010 an international conference on physician health took place in Chicago and was hosted by the American Medical Association, the Canadian Medical Association and the British Medical Association [38].

Doctors from all over the world gathered in order to discuss physician health and its relationship to quality care and patient safety. Further topics included the need for peer support and workplace interventions for impaired physicians.

Above all, the conference aimed to remove stigma and foster a healthier emotional climate for doctors [38]. A professor for clinical psychiatry, Dr. Myers, declared that many doctors felt that they are supposed to be perfect and that this feeling causes them to supress their problems and might prevent them from seeking help. "There's got to be a balance between dedication and hard work, as well as taking care of yourself and others," Dr. Myers said [38].

V. CONCLUSION AND OUTLOOK

It seems necessary to explore the possibilities of preventing physician burnout and to show concepts enabling doctors to be more satisfied with their work and thus support their patients more effectively.

Recognizing one's own sources of stress can constitute a first step for physicians (and other types of therapists) towards more quality of life and professional satisfaction. This also becomes clear in depth-psychologically oriented course curricula [2] as well as in ongoing accompanying Balint and supervision groups [3] at the Interuniversity College for Health and Development [39] as well as in (psycho-)analytic group approaches [8,13] towards burnout prevention which are rooted in cross-fertilisation of psychoanalysis and sociology [14].

One might point out in this context that the protagonist in Graham Green's novel mentioned in the introduction of this article recovers from his "burnt-out" condition by working in a team and providing loving care for leprosy patients [4]. The importance of social networking is a very important component of job satisfaction and personal well-being. A Taiwanese study came to the conclusion that human resource professionals should care about both formal and

Physicians can often find emotional support, helpful information and guidance from colleagues. Therefore teamwork can really make a difference when it comes to preventing burnout.

informal relationships[40].

"There's got to be a balance between dedication and hard work, as well as taking care of yourself and others," Dr. Myers explained at the Chicago conference on physician health[38].

In order to prevent and/or overcome burnout the following factors experts believe the following factors to be important for affected physicians: change of lifestyle, improvement of relationships and communication and environmental change. Lefebre recommends to start with communication in order to be successful [41].

Communication has various aspects, including a wide range from personal communication to media-supported approaches.

Balantic et al. emphasize the importance of doctor-patientcommunication and present a model of "Interactive multimedia support...for patient education"[42]. Koutsojannis et al. describe a computational intelligence approach for medical diagnosis and treatment of special diseases representing a support system for resident doctors and providing information for their patients [43].

In an article published in the *Journal of the American Medical Association*, Riess complains the lack of an "empathic connection" between doctors and patients [44], several studies report empathy deficits in physicians. Riess, a psychiatrist from Harvard University, states that patients who bond emotionally with their doctors show better results and that physicians who allow themselves to be emotionally engaged with their patients are more satisfied with their jobs and less endangered of burning out.

Having explored the *dyadic* relationship between physicians and their patients, Halbesleben has found a direct link between physician burnout and patient outcomes [45]. Williams et al. have described the relationship of physician stress and burnout with suboptimal patient care [46].

Bergner [34] suggests that during their education doctors focus on logical-mathematical intelligence in order to practice *lege artis*. Bergner emphasizes the importance of emotional intelligence and lists the following types of emotional intelligence considered to be of vital importance for the doctor-patient-relationship. First, *intrapersonal intelligence* is important in order to establish a valuable inner feedback system, enabling doctors to understand their reactions to patients. Furthermore, *interpersonal intelligence* is necessary for an empathic reaction. Moreover, *verbal intelligence* enables doctors to read between lines and to address their target group more effectively. The use of emotional intelligence results in emotional competence, a concept described by Goleman et al. [47].

REFERENCES:

- Fuchs S., Endler P. C., Mesenholl E., Paß P., Frass M., Burnout bei niedergelassenen Ärztinnen und Ärzten für Allgemeinmedizin, Wiener Medizinische Wochenschrift, 2009; 7-8:188-191
- [2] Leopold-Opara M., Kohler S., Paß P., Endler P.C., Teaching Foundations of Depth Psychology in a Master's Program for Complementary Health Sciences. Evaluation research using qualitative content analysis, *Eu J Integrative Med*, 2010; 2(4): 224-225
- [3] Jelinek B., Uhl G., Paß P., Baumann H., Mesenholl-Strehler E., Endler P.C., Balint and supervision groups in a Master's Program for Complementary Health Sciences. Evaluation research based on a standardised questionnaire, *Eu J Integrative Med*, 2010; 2(4): 225
- [4] Greene G. A Burnt-Out Case, Penguin Books, London 1960
- [5] Freudenberger, H.-J., Staff burn-out, Journal of Social Issues, 1974; 30

Bergner [34] is confident that emotional competence is absolutely essential for health care systems. In his opinion, emotional intelligence is an essential means of preventing physician burnout. This concept is also supported by other studies. For example, Herbert et al. [48] or Wagner et al. [49] have accentuated its importance for all medical professionals.

As recent publications have shown, the importance of implementing new concepts like emotional competence in doctoral education and training programmes cannot be overestimated. This is widely considered to be one of the essential factors in burnout prevention. Maybe it is even necessary to think about changing the acceptance process concerning medical education [37,50]. Most universities concentrate on young people with excellent grades who are able to learn facts and pass exams. But their excellent grades do not necessarily give information about emotional and social competence of the students-to-be [37, 51].

It seems reasonable to resume that there are more questions than answers when it comes to the topic of physician burnout. Many aspects have to be explored more deeply, such as the significance of the physicians' personal dispositions.

Further study seems necessary and should be facilitated ans implemented, using standardized as well as larger sample sizes. Moreover, in order to find sustainable methods to prevent and fight burnout, long-term surveys are considered to be indispensable.

- [6] Pines, A.M., Aronson, E., Kafry, D., Ausgebrannt. Vom Überdruss zur Selbstentfaltung. Klett-Cotta, Stuttgart 1983
- [7] Rook, M., Theorie und Empirie in der Burnout-Forschung. Eine wissenschaftstheoretische Standortbestimmung, Hamburg, Kovac, 1998
- [8] Schmidbauer, W., Hilflose Helfer. Über die seelische Problematik der helfenden Berufe, 11. Auflage. Rowohlt, Reinbeck 2002
- [9] Fengler, J., Helfen macht müde. Zur Analyse und Bewältigung von Burnout und beruflicher Deformation, 5. Auflage, J. Pfeiffer, München, 1998
- [10] Burisch M., Das Burnout-Syndrom. Theorien zur inneren Erschöpfung, 3. Auflage. Springer, Heidelberg 2006
- [11] Maslach C., Jackson S.E., *Burnout: the cost of caring,* Englewood Cliffs. Prentice-Hall, New York 2006
- [12] Maslach C., Leiter M.P., Die Wahrheit über Burnout. Stress am Arbeitsplatz und was Sie dagegen tun können, Springer, Wien 2001
- [13] Yalom I.D., Leszcz M., The theory and practice of group psychotherapy, Basic Books, New York 2005
- [14] Pines M. (ed.), The Evolution of Group Analysis, Routledge & Kegan, London, 1983

- [15] Hauswirth M., Körperpsychotherapeutische Ansätze an Hand eines klinischen Beispiels, *Psychotherapie Forum*, 2010; 18/3: 162-166
- [16] Koemeda-Lutz M., Behandlungskonzepte bei Burnout was haben körperpsychotherapeutische Ansätze beizutragen? Psychotherapie Forum, 2010; 18/3: 167-173
- [17] Vasile D., Vasiliu O., Ojog D., Burn Out in a Sample of Physicians, Nurses and medical Students – Risk Factors Analysis, WSEAS International Conference on Risk Management, Assessment and Mitigation, Bucharest 2010,<u>www.wseas.us/e-</u> <u>library/conferences/2010/Bucharest/RIMA/RIMA-83.pdf</u>
- [18] Reimer C., Jurkat H., Frust, Existenzangst und keine Perspektive. So beurteilen Deutschlands Allgemeinärzte ihre Lebensqualität, *Der Allgemeinarzt*, 1997; 13: 1224-1228
- [19] Gathmann P., Semrau-Lininger C., Der verwundete Arzt. Ein Psychogramm des Heilberufes, Kösel, München 1996
- [20] Siber G., Endler P.C., Mesenholl E., Lothaller H., Haug T.M., Paß P., Frass M., Kohärenzempfinden (Sense of Coherence) bei niedergelassenen Ärztinnen und Ärzten für Allgemeinmedizin. *Wiener Medizinische Wochenschrift* 2009; 7-8: 192-195
- [21] Karazman R., Geißler H., Karazman-Morawetz I. Lebensqualität und Belastungen von Hausärztinnen und Hausärzten in Tirol, Studie: Österreichischer Hausärzteverband Vienna 1994
- [22] Bovier P., Bouvier Gallacchi M., Goehring C., Künzi B. Wie gesund sind die Hausärzte in der Schweiz? *Primary Care* 2005; 5: 222-228
- [23] Bergner T., Burnout bei Ärzten, Schattauer, Stuttgart 2006
- [24] Lalouschek, W., Interview: "Die Professionalität leidet", Ärztemagazin 2007; 42: http://www.medical-tribune.at (15.11.2007)
- [25] Mäulen B., Ärztegesundheit, Urban&Vogel, Munich 2007
- [26] Karazman R., Geissler H., Karazman-Marawetz I., Lebensqualität, Sinn-Entwicklung und Belastungen bei Niederösterreichischen Hausärztinnen und Hausärzten, Vienna 1994
- [27] Büssing A., Perrar K.M., Die Messung von Burnout. Untersuchung einer deutschen Fassung des Maslach Burnout Inventory (MBI-D), Diagnostica 1992; 38: 328-353
- [28] Schaufeli W., Leiter M.P., Maslach C., Jackson S.E., Maslach Burnout Inventory – General Survey (GS). In: Maslach C., Jackson S.E., Leiter M.P., *Maslach Burnout Inventory Manual*, Consulting Psychologists Press, Palo Alto, CA 1996
- [29] Büssing A., Glaser J., Managerial stress and burnout. A collaborative international study (CISMS) Die deutsche Untersuchung (Bericht Nr.44 aus dem Lehrstuhl für Psychologie), Technische Universität, Lehrstuhl für Psychologie, Munich 1998
- [30] Bieringer I., Burnout-Problematik bei Richterinnen und Richtern in Niederösterreich, Thesis Interuniversity College, Graz 2004
- [31] Moosler, G., Mesenholl, E., Endler, P.C., Geelhaar, C.W., Burnout bei Krankenpflegepersonal im Kontext der Burnoutforschung, *Pflegewissenschaft* 2010; 12: 02, 87-99
- [32] Sprenger M., Pammer C., Ergebnisse der Befragung "Burnout in der Allgemeinmedizin". 37. Kongress für Allgemeinmedizin, 2006. http://www.allgemeinmedizinkongress.at (Abruf 31.01.2007)
- [33] Argyropolous S.E., Psychosoziale Belastungen von niedergelassenen Allgemeinärzten und Allgemeinärztinnen. Eine Untersuchung zum Burnout, Diplomarbeit: Leopold-Franzens-Universität, Innsbruck 2005
- [34] Bergner T., Burnout bei Ärzten. Lebensaufgabe statt Lebens-Aufgabe, Deutsches Ärzteblatt 2004; 101/33: A 2232-2234

- [35] Ruebsam-Simon E., Arztberuf in der Krise. Veränderung beginnt im Kopf, *Deutsches Ärzteblatt* 2002; 99(43): A 2840-2844
- [36] Sonneck G., Das Burnout-Syndrom, Österreichische Ärztezeitung 2005; 44: 28-36
- [37] Nelting M., *Burnout. Wenn die Maske zerbricht*, Mosaik bei Goldmann, München 2010.
- [38] Krupa, C., Greater awareness of physician burnout and depression needed, experts say, <u>http://www.amaassn.org/amednews/2010/10/18/prse1021.htm</u> (19.02.2011, 18:08)
- [39] http://www.inter-uni.net
- [40] Yang H., Lai Y., Chao W., Chen S., Wang M., Propensity to connect with other, Social Networks and Job Satisfaction of Nurses, WSEAS International Conference on Communications, Rodos 2009, <u>www.wseas.us/e-</u> <u>library/conferences/2009/.../COMMUNICATIONS29.pdf</u>
- [41] Lefebre D., Burnout oder berufsbedingter Erschöpfungszustand bei praktizierenden Ärzten, Primary Care, 5 (9):201-202.
- [42] Balantic Z., Flezar M., Balantic B., Interactive multimedia support (IMS) for pulmonary patient education, WSEAS International Conference on Communications, Athens 2005.
- [43] Koutsojannis C., Tsimara M., Nabil E., HIROFILOS: A Medical Expert System for Prostate Diseases, WSEAS International Conference on Computational Intelligence, Man-Machine-Systems and Cybernetics, Cairo 2008, <u>http://www.wseas.us/elibrary/conferences/2008/cairo/CD-CIMMACS/CIMMACS40.pdf</u>
- [44] Riess H. Empathy in Medicine—A Neurobiological Perspective. Journal of the American Medical Association. 2010; 304(14): 1604-1605.
- [45] Halbesleben JR., Rathert C. Linking physician burnout and patient outcomes: exploring the dyadic relationship between physicians and patients. *Health Care Management Review* 2008; 33: 29-39.
- [46] Williams ES., Manwell LB., Konrad TR., Linzer M. The relationship of organizational culture, stress, satisfaction and burnout with physician-reported error and suboptimal patient care: results from the MEMO study. *Health Care Management Review* 2007; 32: 203-212.
- [47] Goleman D., Boyatzis R., McKee A. Emotionale Führung. Econ: München 2002.
- [48] Herbert R., Edgar L. Emotional intelligence: a primal dimension of nursing leadership? *Canadian Journal of Nursing Leadership* 2004; 17:56-63.
- [49] Wagner PJ., Moseley GC., Grant MM.,Gore JR. Physicians emotional intelligence and patient satisfaction. *Family Medicine* 2002; 34: 750-754.
- [50] Whitcomb ME. Helping physicians in training to care for themselves. Academic Medicine 2004; 79: 815-816.
- [51] Voltmer E., Kieschke U., Spahn C. Psychological health risk factors and resources of medical students and physicians: a crosssectional study. *BMC Medical Education* 2008; 8:46.

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