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The International Conference, October 6, 2017
»Health Professionals - Stress, Burnout and Prevention«

Book of Contributions

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Abstract:

The medical staffs in health service institutions are often required to spend time in intense involvement with other people. Frequently, the staff-client interaction is centred on the client's current problems (physical, psychological, social) and is therefore charged with feelings of pain and suffering, fear, despair, turmoil and anger.

The main aim of our meeting is to discuss the consequences of such personal burdens as well as to get a better insight into the background of professional burnout phenomenon in general. Because a burnout could not be only the result of job characteristics but could appear also as the result of work organization type, social relationships, as well as of some personal characteristics and individual′s life style, too, it is essential to look for the forms of support not only on the individual, but it is necessary to consider also the preventive options at the institutional level.

Key words: • professional burnout • social exchange balance • human well-being •

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THE INTERNATIONAL CONFERENCE, OCTOBER 6, 2017.
»HEALTH PROFESSIONALS - STRESS, BURNOUT AND PREVENTION«
Z. Rakovec-Felser

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A Few Introductory Thoughts

ZLATKA RAKOVEC-FELSER

On the following pages stress and burnout will be discussed, especially among doctors and nurses. But what leads to distress at work and what triggers the process of burning out? And finally, what's the difference between stress and phenomenon of burnout?

How to define burnout?

It was estimated that over 6,000 books, chapters, dissertations, and journal articles have been published on burnout since this phenomenon has elicited the attention of researchers. Despite this, there is no single definition of burnout that has been accepted as a standard yet. Frequently cited definition of burnout according to Maslach and Jackson pointed out that burnout is a process of emotional exhaustion, depersonalisation, and reduced personal accomplishment that occur among individuals who do »people work« of some kind. It corresponds to the most widely used self-reported questionnaire MBI, which includes all three dimensions that are mentioned in this definition.

According to Siegrist′s ERI model the trigger factor for the occurrence of job burnout signs is the effort-reward imbalance. The ERI model claims that the work role is crucial in order to fulfil individual self-regulatory needs because it offers opportunities to acquire self-efficacy, self-esteem, and self-integration. Based on the principle of social reciprocity, the employee invests efforts and expects rewards in return. However, in case the imbalance is present between high effort and low reward, this taken-for-granted routine is disrupted and the fulfilment of individual′s needs for autonomy, competence, and relatedness is threatened. Resulting disproportion may lead to a state of ''active distress'' by evoking strong negative emotions, which in turn sustained activation of the autonomic nervous system and may contribute to the development of physical (e.g. cardiovascular) as well as mental (e.g. depression) diseases.

But the importance of balance between input and perceived effects at the job is not the only one that provides the individual with a sense of well-being. Important is also balance between different human′s life roles.

But why is it necessary to be familiar with this phenomenon? How is it shown in medical practice, what triggers it, what are the consequences, and above all, how to protect oneself against it?

Edelwich and Brodsky have highlighted that in helping professions burnout may be expressed as a slowly developing process of individual′s increasing disillusionment, the progressive loss of idealism, energy, and purpose. They described four stages of progressive disillusionment: enthusiasm, stagnation, frustration, and apathy. The process

could start without warning signs and evolve almost unrecognized up to a particular point. In this context, it must be emphasized that more than 100 symptoms and possible consequences of affective, cognitive, physical, behavioural, or/and motivational characteristics have been found already.

And what triggers burnout signs?

We will not go into details of all individual and situational factors, which could lead to burnout, but will only highlight some of them. So for example, in the context with personality factors the research data have revealed a link between the exhaustion dimension of burnout and type A-behaviour (competition, time-pressured lifestyle, hostility, and an excessive need for control) as well as between appearance of burnout and narcissistic "illusion of grandiosity".

On the other side, not only individual but also situational factors create a work-related stress and burnout. The American Medical Association studies have found out that a workload; possibility of autonomy; control and reward at work; relatedness with others; physicians' level of satisfaction; and work–life balance have a significant impact to the occurrence of job distress and burnout.

What are the consequences of burnout among physicians?

There are many reasons why awareness of the burnout phenomenon among doctors and nurses became important. American as well as European researches have revealed a great increase of burnout signs among physicians, and even among medical students. Of course, such increase of burnout signs has a negative impact not only on physicians′ quality of life; the consequences are evident also in other respects. Physician′s signs of burnout negatively impact professional relationships with patients, reduce the effectiveness of patient care, undermine teamwork and raise the problems in communication with colleagues; it has negative consequences not only on the quality of health care, but also on physicians personally. It could lead to undesirable behaviour, poor self-image, depression and even to the suicidal ideation. Therefore it makes sense to consider seriously how to protect oneself against burnout in medical practice. In clinical practice of caring for others, day after day, there are some benefits but also some risks for the physician's personal wellbeing.

Which are the benefits?

It was found that to the doctors themselves empathy is a protective factor against the experienced stress and a potential factor for their well-being. They often perceive empathic relationship with patients as meaningful interpersonal connections which can serve as a buffer against dissatisfaction with health care system and professional burnout. Another study confirms that physician-patient relationship provides an intrinsically joyful reward that serves as a remedy for stress of demanding professions. Even more,

physicians in clinical practice expressed more satisfaction and happiness with their careers than those who are not in the direct contact with patients.
And which are some of the risks for the physician's personal well-being?

Exhausted when saying Yes, guilty when saying No – it is a struggle between giving and taking, between other care and self-care, between altruism and self-preservation. This is a universal dilemma in the human being which gets highly critical when intense interaction - helping, teaching, guiding, advising, or healing is one's occupational core. Here, giving of oneself is a constant requirement for success.

How to protect oneself?

Authors highlighted that for those who assist others with physical, emotional, and educational needs it is necessary to sustain the professional self. Therefore, it is important that they understand their own professional roles; to find a meaning and purpose of providing for others, but also to learn to set boundaries, limits, and say No - especially in private contacts; to abandon the illusion of "good enough practitioner" which can lead to the occupational exhaustion as well as to a loss in creativity and personal growth, to reduce expectations and focus on small changes; feeling that they are succeeding, even in small ways. Very important is also creating a professional greenhouse at work: leadership that promotes healthy other-care vs. self-care balance, social support from colleagues, receiving other-care from senior consultants, mentoring others, and having fun.

Professionals in the helping fields need to be assertive about their own wellness, they need to sustain also their personal self. This means active health care in all four dimensions of health and balance between them: emotional/social, physical, intellectual, and spiritual health. In short, it is important to make a distinction between own personal lives and relationships on the one hand and the professional relationships on the other hand and to continuously search and look for positive life experiences which produce feelings of zest, peace, euphoria, excitement, happiness, and pleasure.

Finally, thanks to all authors who have highlighted through their extensive knowledge, experience and personal vision the problems of job stress and occurrence of burnout signs among the health care professionals, and have even in small things and steps suggested possible solutions.

Thanks also to all those who, due to various obligations could not prepare a written contributions timely, but they will present their topics in an oral presentation and so contribute to the importance of awareness in this area.

And, of course, the same goes for others, all those who were willing to take part in one way or another, thus contributing to the realization of this professional meeting.

We are convinced that it will contribute to raising awareness about the burnout phenomenon, its adverse and multifaceted consequences in clinical practice as well as in the health care professionals′ private life and well-being.

The meeting will surely be useful also in finding a key to form protective measures, types of providing help and support at both, the individual and institutional levels.

Nekaj uvodnih misli

ZLATKA RAKOVEC-FELSER

Na naslednjih straneh se bo bralec soočil s pojavom izgorevanja, kakor se kdaj pojavlja in prizadene dobro počutje in učinkovitost zdravnika ali medicinske sestre, znake pa je mogoče kdaj srečati tudi že med študenti medicine. Seveda se bomo ob tem vprašali, kaj vse vodi v stres in kaj posledično sproži proces izgorevanja zdravstvenega osebja. Odkrili bomo razliko: kaj je stresna izčrpanost in kako se kaže izgorelost.

Sploh pa, kako opredeliti pojav izgorevanja?

Ocenjujejo, da je bilo o pojavu v svetu doslej spisanih okrog 6000 knjig, poglavij, doktorskih nalog in člankov, a splošno sprejete in enovite opredelitve pojava izgorevanja kljub temu še nimamo. Najpogosteje se avtorji po svetu naslanjajo na definicijo, ki sta jo podali Maslachova in Jacksonova, ko pravita, da je izgorevanje proces čustvene iztrošenosti, razosebljenosti in znižane osebne učinkovitosti, ki se pojavlja pri ljudeh, čigar poklicno delo vključuje skrb za druge. Opredelitev se naslanja na široko uporabljan vprašalnik izgorevanja Maslach Burnout Inventory (MBI), ki vključuje prav te tri omenjene dimenzije.

In kje so osnovni vzroki?

Za uvod naj omenimo Siegrist′s ERI-jev model nastanka izgorevanja. Ta izhaja iz predpostavke, da so znaki izgorevanja posledica neravnovesja med posameznikovimi prizadevanji in nagrado, ki naj bi sledila. Pravimo, da si posameznik s svojim delom in dosežki izpolnjuje temeljne emocionalne in socialne potrebe – po lastni vrednosti, samospoštovanju ter povezanosti z okoljem. Tako je treba razumeti njegova prizadevanja. V zameno za vložene napore, zavestno ali povsem podzavestno, pričakuje priznanje oz. nagrado. Težave nastanejo, ko te recipročnosti v njegovem socialnem okolju ni oziroma tedaj, ko so ogrožene posameznikove potrebe po avtonomiji, kompetentnosti in socialni vključenosti. V posamezniku se sproži vrsta negativnih čustev: posameznik se znajde v stanju distresa, kar se preko dalj trajajoče vzburjenosti avtonomnega živčnega sistenma prej ali slej izrazi v telesnih (n.pr. kardiovaskularne motnje) ali/in psihičnih disfunkcijah in boleznih (n.pr. depresija).

Ravnovesje med vloženimi napori in doseženimi učinki pa ni edina stvar, ki posamezniku zagotavlja dobro počutje. Pomembna je tudi medsebojna uglasitev različnih vlog, ki jih posameznik prevzema v življenju.

Toda kako lahko nakopičena vêdenja o pojavu izgorevanja doprinesejo k učinkovitosti dobremu počutju delujočih v klinični praksi? Sploh pa, kako se pojav kaže v klinični

praksi zdravnika ali njegovih sodelavcev? Kaj ga sproži? Kakšne so posledice? In predvsem, kako se zaščititi in ukrepati, ko so znaki že enkrat prisotni?

Edelwich in Brodsky poudarjata, da se znamenja izgorevanja nikoli ne pojavijo čez noč. Včasih je to prav počasi potekajoč proces vse hujših razočaranj, vse opaznejših izgub idealizma, energije in smisla. Govorita o štirih stopnjah izgubljene vere in zagona pri delu. Na začetku poklicne poti posameznik opravlja svoje delo s posebno gorečnostjo, ki pa se zaradi razočaranj in razkoraka med ideali in realnostjo prevesi v fazo, ko se posameznik umakne in omeji svoja prizadevanja. Avtorja pravita, da posameznik stagnira in nato, če se to stanje nadaljuje, preide v tretjo fazo, v fazo frustriranosti. Na koncu, ko je frustracij vse več, posameznik pade v apatijo, kar predstavlja četrto, zadnjo fazo izgorevanja.

Morda je dobro vedeti tudi, da se proces lahko sproži brez posebnih opozorilnih znamenj in da lahko tako neopazno tudi napreduje. Kar zadevo navadno zaplete je raznolikost znakov (več kot sto simptomov izgorevanja) in seveda njegove posledice, ki se navadno izrazijo na čustvenem, kognitivnem, vedenjskem ali telesnem področju, pri čemer pa seveda ni nujno da so vidne na vseh hkrati.

A kaj pojav običajno sproži?

Na tem mestu se ne bomo spuščali v podrobnosti vseh individualnih in situacijskih dejavnikov, ki lahko generirajo pojav poklicnega izgorevanja. Osvetlili bomo samo nekatere. Raziskovalci, ki se vrsto let sistematično ukvarjajo s povezanostjo poklicnega izgorevanja z osebnostnimi karakteristikami posameznika, so odkrili povezanost med čustveno izpraznjenostjo in človekovim A-tipom vedenja (tekmovalnost, časovna stiska, sovražnost, potreba po nadzoru). Ugotovili pa so tudi sorazmerno visoko povezanost med pojavom izgorevanja in narcističnimi karakteristikami oz. grandiozno samopodobo posameznika.

Na drugi strani pa ne le individualni, pač pa tudi situacijski dejavniki, ustvarjajo pogoje za stres in posledično izgorevanje. Tako so raziskave ameriškega zdravniškega združenja odkrile nekaj najbolj verjetnih sprožilcev izgorevanja pri delu zdravnika: preobremenjenost pri delu z bolniki, omejitve v samostojnem odločanju, izguba nadzora nad opravljenim delom, pomanjkanje spodbud in slabo nagrajevanje za opravljeno delo, nezadovoljstvo, pomanjkljiva povezanost z drugimi ljudmi, neusklajenost poklicnih zahtev z zasebnim življenjem.

Kaj pa posledice izgorevanja? Kako se te kažejo?

Mnogo je razlogov zakaj je pomembno poznavanje pojava izgorevanja. Ameriški, a tudi evropski podatki kažejo na visok porast znakov izgorelosti med zdravniki opozarjajo pa tudi na možne posledice. V porastu pa naj bi bil pojav ne le med zdravniki, pač pa tudi že med študenti medicine.

Porast znakov izgorevanja slabo vpliva na kakovost zdravnikovega življenja in posledice se kažejo v stikih z bolniki, vplivajo na učinkovitost bolnikove oskrbe, zavirajo razvoj timskega dela, sprožajo nesporazume in spore s sodelavci, ima torej neželene učinke tako na kakovost zdravniške oskrbe, kot na zdravnika osebno. Lahko vodi k neželenim vedenjskim navadam (alkohol, droge, hrana), k slabi samopodobi, depresiji in prizadetega posameznika, kot beležijo številne raziskave po svetu, privede celo do samomorilnih misli.

Velja torej razmisliti, kako se v klinični praksi zaščititi pred izgorevanjem in njegovimi posledicami.

Skrb za blagostanje drugih ljudi, in to dan za dnem, prinaša zdravniku nekaj prednosti, a predstavlja hkrati zanj in njegovo psihofizično počutje tudi tveganje.

Katere so prednosti?

Ugotovili so, da so zdravnikove empatične sposobnosti v stresogeni klinični praksi zanj navadno zaščitni dejavnik. Celo več, lahko so izvor zdravnikovega dobrega počutja. Empatično vzpostavljen stik z bolnikom je lahko zanj kompenzacija za nezadovoljstvo zaradi organizacijskih težav, neurejenih in konfliktnih odnosov z ostalim zdravstvenim osebjem, s poklicnimi kolegi in z zdravstvenim sistemom v celoti. Na to opozarjajo tudi rezultati raziskav, ki kažejo, da zdravniki, ki so pri svojem delu v neposrednem stiku z bolniki izkazujejo več zadovoljstva s svojo poklicno izbiro kot tisti, ki niso v takem, neposrednem stiku z bolniki.

In kje tičijo pasti zdravnikovega poklica?

To predstavlja bitka: Kje potegniti črto med skrbjo za druge in skrbjo zase, med znati reči "Ne", ko bi "Da" pomenil načenjanje lastne substance? Ali drugače, kje se začenja meja med altruizmom in nujnostjo samoohranitve? Gre za večno vprašanje daj-dam ravnovesja, ki sicer tudi sicer obremenjuje medosebne odnose, a je posebno prisotno v vseh t.im. poklicih pomoči, vodenja, svetovanja, poučevanja. Še več, lahko bi celo rekli, da je prav v teh poklicnih dejavnostih "samožrtvovanje" sestavni del posameznikovega uspeha. Zato ni zgrešena tista trditev, da je delo v zdravstvu, in to še celo v bolnišnični praksi, pravzaprav način življenja.

In kako se zaščiti?

Avtorji poudarjajo, da tisti, ki pomagajo drugim, morajo nujno skrbeti tudi zase.

Pomembno je, da razumejo svoje poklicno vlogo, najdejo smisel in pomen pomagati drugim, a se hkrati učijo postavljati jim meje in sprejemati svoje omejitve. Še posebno v zasebnem življenju znati reči "Ne" ter se otresti iluzije o popolnem zdravniku je toliko bolj pomembno, ker nasprotna usmerjenost vodi v iztrošenost, izgubo ustvarjalnosti in zavira osebnostno rast. Zmanjšati pričakovanja, biti zadovoljen in občutiti uspeh tudi ob

malih premikih, to so ukrepi, ki posameznika navadno osvobodijo notranjih pritiskov in prisil. Vodje delovne ekipe v zdravstveni ustanovi storijo veliko zase in za druge, če zagotovijo ugodno delovno klimo: organizirano medsebojno pomoč in podporo v primeru strokovnih in človeških dilem, vključitev starejših, izkušenih strokovnjakov kot svetovalcev, učiteljev in pomočnikov drugim, mlajšim in manj izkušenim, uveljavljanje zdravega ravnovesja med skrbjo za druge in skrbjo zase, občasna družabna srečanja izven delovnega mesta.

Za tiste, čigar delo vključuje nudenje pomoči drugim, je pomembno ne le oblikovanje lastne poklicne podobe, temveč tudi skrb za lastno osebnostno podobo in rast. To praktično pomeni, da bi naj zdravstveno osebje in med njimi še posebno zdravnik in medicinska sestra skrbeli za vsa štiri področja zdravja in dobrega počutja: za svoje čustveno in socialno ravnovesje, za telesno, umsko in duhovno stanje. To konkretno pomeni, da je dobro, ko razmere in čas to dopuščajo, izstopiti iz svojih poklicnih vlog, iskati izzive in zadoščenja drugje, na drugih področjih in med drugimi profili ljudi, slediti svojim sanjam in interesom ter neprestano iskati poti, kako jih kreativno uresničiti. Notranji mir, navdušenje in polet, vznemirjenje, veselje in občutek sreče bomo najbrž tudi uspeli ohraniti v sebi, če se bomo v katerikoli že, a še posebno v poklicni vlogi otresli iluzije o popolnosti in notranjega pritiska, da moramo biti v tekmi z drugimi vedno na vrhu.

Za konec pa zahvala vsem avtorjem in njihovim sodelavcem, ki so svojim znanjem, izkušnjami in osebnim videnjem v svojih pisnih prispevkih osvetlili problem stresa in izgorevanja zdravstvenega osebja, in še posebno zdravnika pri delu z bolniki, svojci in drugim zdravstvenim osebjem. V vsakem od zbranih prispevkov je najti nekaj drobcev, ki kažejo na možne rešitve, skupaj pa so gotovo izhodišče za snovanje zaščitnih, pa tudi ukrepov pomoči in podpore.

Hvala tudi vsem drugim, ki bodo tako ali drugače s svojim osebnim doprinosom obogatili srečanje in doprinesli k ozaveščenosti na tem področju, kot velja zahvala tudi vsem tistim, ki so bili tako ali drugače pripravljeni sodelovati v pripravah in uresničitvi srečanja Stres, izgorevanje zdravstvenega osebja in zaščita ter so s tem omogočili izmenjavo znanj in izkušenj na tem področju.

Prepričani smo, da bo srečanje doprineslo k večji ozaveščenosti o pojavu poklicnega izgorevanja, njegovih posledicah in možnih zaščitnih ukrepih med zdravstvenim osebjem, tako na ravni posameznika kot ustanove.

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A Few Observations on Burnout of Slovenian Medical Chamber Chairwoman

ZDENKA ČEBAŠEK-TRAVNIK

To write about the phenomenon of burnout something new, different or exciting is difficult nowadays. I shall let this be a challenge for this introduction. I myself have been dealing with the questions of burnout since 1988. At the time a book was published titled *Der Rückfall des Suchtkranken : Flucht in die Sucht?*. Its editor and co-author Joachim Korkel gave me the book as a gift and invited me to cooperate in a research on burnout of therapists in persons with diseases of addictions. That was my first contact with the phenomenon of burnout.

As a psychiatrist and systemic family psychotherapist I follow researches of this field and try to transfer knowledge to clinical and pedagogical practice. I remember how the late professor Janko Konstenapfel asked me at the dissertation defence what was a clinical entity of burnout. His reflection went in the direction of neurotic or personality disorders (so called *character neurosis*), while I myself insisted that the phenomenon cannot be put in narrow medical frames, for at the time (in the year 1997) it has not been researched and defined very well, the criteria for making a "diagnosis" and method of "treatment" have been only in their beginnings. But in 10th Revision of the International Classification of Diseases burnout has finally got its mention with the code Z 73.0 in the chapter *Factors influencing health status*. Therefore, we physicians can add this diagnosis when we wish to stress that there is a specific background of a certain mental disorder, for example depression or anxiety.

Researching of burnout was in the beginning based primarily on the usage of questionnaire of Christine Maslach. Her questionnaire (Maslach Burnout Inventory), first published in 1981, basically stayed the same. Nowadays it is adjusted to various vocational groups and purposes. This is why it is not surprising that questionnaires of other authors developed and with this almost non-transparent number of ways for determining burnout in an individual.

Authors, in the initial phase of researching burnout, were looking for causes among the so-called helping professions where care is applied to the needs of other people. Nowadays it is known that it can occur in practically all working environments, even more – it has been measured also in pupils and students. Therefore, it is a universal phenomenon, even more than scientists thought at first. Besides this nowadays ist

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consequences for human health are being determined not only in psychological area, but also bodily symptoms and consequences of burnout are being discovered.
Researches do not go only towards detecting of psychic, but also towards physical symptoms and consequences, as well as not only towards searching for individual, but also for situational reasons for the occurrence of burnout.

Some groups of researchers focus especially on searching for environmental factors. In this way many signs of burnout have been found out in environments where an individual is placed before demands which exceed his/her abilities of adaptation (energy, power, means), of which Freudenberger has been writing about already in 1974. It is a case of sociological studies which are based on a definition that the phenomenon of burnout is triggered off by social factors, as in 1991 Sheila McNamee and Laura Fruggeri have written. The view combines theories of social constructivism and systemic theory. Can such way of thinking bring a better insight into the problematics of burnout to us? The answer is not and cannot be simple. But it contributes to a reduction of workload in working environments, especially if there is lack of autonomy of employees or poor feedback on already done work. The latter is in health care not such a rare phenomenon. Researcher Katie Coleman is convinced that basic causes for the phenomenon of burnout lie in a working environment. She enumerated some features of a dysfunctional working organization:

- secrets (some employees know things of which others have no idea),
- nonsensical rules (which evaluate only momentary successfulness, not successfulness in the long term),
- wall of silence (it rarely happens that one expert would publicly confront another who has done something totally wrong; this is why it is allowed also to less ethical employees to work and their work is not corrected),
- high degree of responsibility and at the same time little power in decision-making (an example can be a role of a nurse or a specialist registrar),
- innovativeness is not rewarded (there is neither praise for the publication of articles nor for vocational success and that is why the system stagnates),
- jealousy (instead of the system rewarding successful experts who could become role models for the younger, they are frequently limited by administrative rules),
- paper work (many times dealing with a problem is connected with so much writing and so many meetings that it is easier to ignore it and to not resolve it).

American physician Pamela Wible has proposed a challenging thesis. Upon researching the epidemic of suicides among physicians in the United States of America she wrote: "*You are not suffering from burnout. You have been abused*". She refers to the affected who should no longer be thinking of burnout, but should confront with the fact that they are victims of abuse and to this there should be also a suitable diagnosis (a victim of abuse). "Burnout is a physical and mental collapse due to overload. So why blame the victims?", she says. Also due to the fact that the blame is ascribed to the victim, the affected confronts so much harder with his/her psychophysical failure and it is harder to stand up for him/herself and perhaps also for this reason it is harder to look for help in

good time. She believes that last but not least these could be reasons for the increased number of suicides among victims of burnout.

We should ask ourselves whether something similar is happening also in our environment. Some researches show that origins of factors, which are regarded as triggers of burnout, are built not only into health care system but also into demands of medical study.

On the basis of a thirty-year following of problematics of vocational burnout together with clinical experiences, I am inclined to an opinion that for effective coping with this phenomenon it is necessary to think about what in the working environment triggers and sustains burnout of employees and how one could take preventive action. Surely this is true also for organization of health care system and institutions which are in the service of health care of people.

We do not wish for abused medical students to become abused physicians who will some day abuse their relatives or even patients. Burnout cannot and must not stay a problem of the affected individual, but demands changes, not only in the working environment, but also in the entire society.

This international conference is one of the important steps towards a common goal – more respectful interpersonal relationships and dignity which will surely contribute to reduction of stress and burnout.

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CONFERENCE PROCEEDINGS

University of Maribor Press

Burnout and Work-Life Balance: A Review of Linkages and Mechanisms

SARA TEMENT

Abstract:

For most employees work and private life are inextricably linked. Burnout may not only become visible though exhaustion, poor work performance, and a cynical attitude toward clients but may also lead to impaired family functioning and may interfere with the attainment of other important life goals. Past research has found that burnout and work-life balance are negatively linked and reciprocally reinforce each other. However, less is known about the potential mechanisms which link both concepts. The present paper gives a brief overview of theoretical approaches to burnout and work-life balance. It further highlights the potential linking mechanisms which explained how poor work-life balance evolves into burnout and vice versa. More precisely, the role of recovery, resource loss, goal disengagement and cognitive processing are discussed. Finally, the paper offers insight for future research and practical implications.

Keywords: • burnout, work-life balance • mechanisms • recovery • conservation of resources • self-regulation • cognitive processing •

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1 Introduction

What happens at work does not necessarily stay at work and may negatively as well as positively affect private life or vice versa. Although supporting employees in their professional and private needs has become an important pillar of national policies and organizational practices over the past decades (1), employee reports of negative work outcomes remained fairly stable and considerably high. For instance, 27% of EU employees reported work-related stress for all or most of their work time in 2015 (2). Overall, up to 20% of employees also state that they are either too tired after work or has no time to devote attention to family and household activities (1). Thus, in order to secure a healthy and sustainable workforce, additional efforts are needed to understand how work and private life are linked and what mechanisms are involved.

The aim of the present paper is to briefly review the knowledge on the link between burnout and work-life balance. First, the article focuses on describing the main definitions of both concepts. Next, mechanisms linking burnout and work-life balance are presented based on previous theoretical models, along with key empirical findings. Finally, future research directions and main practical implications are provided.

2 Approaches to burnout

Burnout was initially described by Freudenberger (3) as a state characterized by failure or exhaustion because of excessive demands on one's energy, strength or other resources. The demands are likely to originate in one's professional life. He also stressed the depressive core of the symptomatology in terms of feelings, thoughts and behaviours and describes the burnout patient as the "house cynic". Similarly, Maslach, Schaufeli and Leiter (4) emphasized that emotional exhaustion, depersonalization and reduced personal accomplishment are the essential characteristics of burnout. Employees experience a lack of energy and a state of depleted emotional resources. Their work is characterized by detached concern, which is exaggerated to the extent of careless, indifferent, and cynical attitude toward other people at work (e.g. patients, clients, students). Reduced personal accomplishment refers to a sense of poor performance of one's job and different job tasks which may develop in parallel to exhaustion and depersonalization or as a consequence. A common feature of both initial approaches was the understanding that burnout is experienced overwhelmingly in jobs with interpersonal stressors.

The definition of burnout was revised in recent years by focusing mostly on exhaustion and depersonalization (5, 6). The notion of exhaustion has been extended to physical fatigue and cognitive weariness (7). In addition, depersonalization may be only one aspect of a disengaged attitude. In line with recent theoretical notions, employees may feel cynical toward the job as a whole, and burnout may occur in occupations, which are not necessary oriented toward other people. Furthermore, personal accomplishment may rather reflect a trait which resembles self-efficacy and is, thus, not necessarily a core burnout dimension (5). Nowadays, burnout is considered as a serious health threat and is associated with a wide range of negative organizational outcomes (e.g. 6, 8).

Nevertheless, it is considered a distinct nosological entity neither by International Classification of Diseases (9) nor by the Diagnostic and statistical manual of mental disorders (10) and overlaps substantially with depression (11, 12). Along with several cognitive, emotional and physical signs, it is also characterized by social withdrawal and impaired family functioning (13).

3   Approaches to work-life balance

In response to the increasingly challenging juggle of work and private life, a wide range of theoretical conceptions emerged which generally reflect the extent, to which an employee can effectively function within different life roles salient to them (e.g. employee, spouse, parent) (14, 15). Moreover, work-life balance captures ones satisfaction with the opportunities to engage in salient life roles. Recently, it has been pointed out that employees need to balance and manage more than work and family roles. Individual′s unique qualities such as hobbies, personal interests, and time for oneself are equally important for a personal definition of balance (16). Moreover, it has been proposed that the construct of work-life balance should not only reflect individual′s assessments of effective role engagement (17). One's own views of his or her work-life balance may not be substantiated by others (e.g. an employee may not be realizing that her or she is not doing a good job in managing the work-family interface) or may even occur at the expense of others (e.g. an employee striving to obtain a promotion at work while other family members carry all the burden at home). Therefore, work-life balance should reflect the expectations of role-related partners (e.g. supervisor, co-worker, and spouse) as well as negotiations with these external parties regarding different obligations.

However, a definition of work-life balance should not only rely on the expectations of others, as they may also be unrealistic or driven by self-serving motives. Work-life balance has often been considered as an absence of work-family conflict, which arises when functioning in one domain (e.g. family) and is impaired by virtue of functioning in the other domain (e.g. work) (18). For instance, when an employee feels that work is keeping him or her from activities with his or her child, work is interfering with family. In case an employee gets into an argument with the spouse and is inefficient at work because of it, family is interfering with work. Thus, work-family conflict is bi-directional in nature. Several authors claim that the absence of conflict does not completely cover the notion of work-life balance and alternatively propose that balance should reflect the extent, to which work and family are positively reinforcing each other. In line of with the notion of positive interdependencies between work and family, work-family enrichment occurs when one domain (e.g. family) improves functioning in the other domain (e.g. work), by providing new knowledge and skills, enhancing positive mood, improving concentration on a given task, and contributing to one's self-esteem (19, 20). Drawing on these notions, the present paper proposes that a balanced life reflects successful engagement, and enjoyment in different life roles and activities which are in line with one's current preferences and values. It simultaneously enables successful engagement and enjoyment of other parties (e.g. supervisor, co-worker, spouse, child, and friend) tied with one's role and activities. In addition, a balance life encompasses the presence of

positive and the absence of negative interdependencies between work and other life domains (e.g. family, leisure).

4   Mechanisms linking burnout and work-life balance

Colloquially, burnout is state of "work and private things getting out of hand". In fact, burnout and work-life balance can be linked, using many different theoretical mechanisms, of which only some have been empirically tested. To date, studies have mostly explored the antecedents of work-life balance (e.g. high job and family demands; 21), less is known about how burnout predicts poor work-life balance and how poor work-life balance culminates into burnout. Moreover, only direct linkages between burnout and work-life balance have been examined (22, 23). In cross-sectional studies, correlation patterns mainly support the view, that burnout and work-life balance are negatively linked. More precisely, high burnout was found to be positively associated with work-family conflict and negatively with work-family enrichment (e.g. 24, 25). In longitudinal studies, predominant support for reciprocal effects between burnout and work-life balance has been found, indicating that high burnout is linked to poor management of different life roles across time and vice versa.

The first mechanism, linking burnout and work-life balance (especially work-family conflict), is recovery. According to the effort-recovery model (26), recovery after work is critical in order to restore one's depleted psychobiological systems. Work-family conflict represents an effortful state which generally taxes one's energy levels and may simultaneously disturb recovery processes. If energy levels are not replenished over longer courses of time, a person may be captured in energy-depleting cycle. Work-family conflict, for instance, may obstruct recovery possibilities which may contribute to exhaustion which, in turn, further prevents successful management of work, family, and other private obligations.

Based on the conservation of resources (COR) theory (27), employees strive to gain and preserve valuable resources. Because of compromises are made between different life roles (e.g., work, family), the important resources in each of the domains may be lost (28). Resources, that are relevant to work-family studies, include personal characteristics (e.g. self-esteem, optimism, feelings of control, feelings of mastery and success), conditions (e.g. employment, marital status, status or seniority at work), and energies (e.g. time for work and loved ones, money, knowledge) that a person values and that help to preserve other resources (28, 29). When one´s management of different life roles is poor, feeling of mastery and success may be seriously compromised, negative emotional states may prevail and time for valued activities may be insufficient. Although potential resources may also be gained when work-life balance is poor (e.g. an employee devoting all his or her attention to work may be highly valued and respected at work), over time resource loss may override potential resource gain, which represents a potential precondition of burnout (30). Moreover, employees facing initial signs of burnout (such as exhaustion on emotional, cognitive, and physical levels) may experience additional resource loss (e.g.

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feeling of mastery, poor performance feedback at work), further diminishing work-life balance.

In contrast to COR theory, self-regulation theories have been less frequently applied to the context of burnout and work-life balance, yet they may offer additional insight into how both constructs may be linked. Committing to different life goals (e.g. preserving a successful relationship, obtaining a permanent job contract) and choosing between them is related to one's self-regulation abilities (i.e. the process of acting on the environment, in order to attain desired outcomes; 31). In this context, work-life balance may be viewed as effectiveness in allocating effort to multiple goals and using appropriate strategies, such as prioritization, to attain life goals in different domains. In contrast, poor work-life balance may reflect impaired self-regulation processes in which goal attainment is thwarted. Based on the incentive-disengagement cycle (32), the initial invigoration when attaining goals evolves intro frustration, which may lead to giving up on important goals. As a result, the person experiences disappointment and other depression- and burnout-like responses (33). When looking at the link between burnout and work-life balance from a reverse-causation standpoint, the state of burnout may interfere with one's self-regulation capacities, reflected in low effort and a lack of desire to obtain multiple goals. In turn, work-life balance may be further diminished.

Finally, burnout and work-life balance may be linked via cognitive appraisal processes (23). In line with attribution theory (34), authors stressed that poor work-life balance may give rise to a set of attributions (i.e., causes for the poor ability to manage different responsibilities; 35). Attributions further determine emotional reactions, as well as behavioural responses. When employees attribute their poor work-life balance to stable causes (e.g., an employee's child has a chronic health condition; therefore, she believes that her family demands will always be overwhelming and that she will never be suggested for promotion at work, and able to fully enjoy hobbies), feelings of hopelessness may emerge. In such cases, employees may become withdrawn from work and family or become cynical about life. Other uncontrollable external causes (e.g., abusive supervisors, poor job conditions) may generate similar maladaptive emotions and behaviours. If maladaptive emotions and behaviours continue to persist, burnout experiences may follow. Other aspects of cognitive processing of life events, such as cognitive errors, may trigger similar responses. These distorted thinking patterns have been found to generate the development and maintenance of psychopathology, yet are also occasionally found in adaptive functioning (36). For instance, if a new employee is emotionally overwhelmed because he or she missed an appointment with her daughter's teacher because of work, and believes that she threatened the daughter's possibilities of getting a good grade, the processing of this work event is fuelled by errors (in this case catastrophizing). Although cognitive errors are a hallmark of depressive symptomatology (37), it can be speculated, that similar errors contribute to the emergence of burnout (11). Additionally, it may be presumed, that cognitive errors and attributions fuel future work-life management difficulties and have a crucial role in their maintenance.

5   Conclusions

The life of employed adults is grounded on at least three different pillars – work, family and leisure (38). It has long been known, that these domains are not separate spheres, but are closely interconnected (39). Managing the different responsibilities and activities is rewarding, yet sometimes these life domains compete for one's time, attention, and energy. Episodes of poor work-life balance and work-family conflict do not necessarily result in burnout. Moreover, employees in initial stages of burnout may not necessarily progress into a severe impairment of one's family life and other activities. The present review offers insights into the underlying processes of recovery, resource loss, goal disengagement, and cognitive processing, which may help to explain the link between burnout and work-life balance and their reciprocal nature.

As most of the mechanisms have not been tested in this context (23), future studies should devote closer attention not only to the direct links between burnout and work-life balance, but also to the indirect mechanisms. Especially, studies using longitudinal research designs with several measurement waves are warranted (40). To the extent that the proposed mechanisms receive empirical support, targeted interventions on individual and organizational level could be developed, to prevent serious consequences from occurring. Recovery processes may be facilitated through different sources of support, such as family supportive supervisor behaviours (41). Mindfulness and other relaxation techniques may not only help the recovery process but may also contribute to conserving resources in terms of positive emotional states (42). Time management and other trainings, facilitating self-regulation processes, may aid the attainment of relevant work and family goals (31; 43). Finally, trainings involving cognitive-behavioural techniques may help to reframe attributions, and may help to replace the biased beliefs with more functional ones (44).

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Burnout in Slovenian Family Medicine Physicians

ZALIKA KLEMENC-KETIŠ & ROK RAVNIKAR

Abstract:

Burnout is a psychological work-related syndrome and is a result of a long-term exposure to the emotional and interpersonal stressors at workplace and it is defined by the three dimensions of exhaustion, cynicism, and inefficacy. Burnout is a combination of high scores for emotional exhaustion and depersonalisation, and a low score for a personal accomplishment.

Burnout is very prevalent among Slovenian family medicine physicians and trainees. Several studies showed that burnout can lead to lower quality of work, lower satisfaction of physicians and patients, higher referral rate, and more medical errors.

Conditions for work of Slovenian family physician should improve and burnout topics should be incorporated in education.

Keywords: • Burnout • Family Medicine • Quality of Work • Satisfaction • Education •

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1 Introduction

Burnout is a psychological work-related syndrome and is a result of a long-termexposure to the emotional and interpersonal stressors at workplace and it is defined by the three dimensions of exhaustion, cynicism, and inefficacy (1). A working environment with chronic and excessive demands that lead to exhaustion or depersonalisation gradually affects a person's feeling of self-effectiveness (1).

Burnout is a combination of high scores for emotional exhaustion and depersonalisation, and a low score for a personal accomplishment (1, 2). Emotional exhaustion represents the basic burnout dimension. It describes the feeling of total overburden and exhaustion of the individual's emotional and physical abilities. It represents itself as fatigue, insomnia, weariness etc. Depersonalization represents the interpersonal aspect of burnout. It appears as a negative, indifferent or uninterested extreme response to various aspects of work and covers a cynical attitude towards colleagues, negative feelings towards the patient, feelings of guilt, increasing social withdrawal, and reduced personal activity. Reduced sense of personal fulfilment or inefficiency represents an aspect of self-esteem in terms of burnout. It appears as a feeling of inadequacy, failure, and reduced productivity at work (1).

The professions, most at risk for the development of burnout, are those involved with helping people, e.g. health workers, psychotherapists, teachers, policemen and lawyers. As personality plays a role in the development of burnout, it must be kept in mind that the high prevalence of burnout among some professions can reflect the pre-morbid personality of persons choosing these professions (2, 3).

2 Features of family medicine

Family medicine is a unique medical specialty, which does not only provide clinical care, but predominantly focuses on continuing, comprehensive and holistic care that is person-based (4). The competencies of family medicine according to which every family physician should practice medicine are: primary care management, person-centred care, specific problem-solving skills, comprehensive approach, community orientation and holistic modelling (5).

Primary care management includes the ability to manage primary contact with patients, dealing with unselected problems; to cover the full range of health conditions; to co-ordinate care with other professionals in primary care and with other specialists; to master effective and appropriate care provision and health service utilisation; to monitor, assess and improve quality and safety of care; to make available to the patient the appropriate services within the health care system; and to act as an advocate for the patient.

Person-centred care includes the ability to adopt a person-centred approach in dealing with patients and problems in the context of the patient's circumstances; to develop and apply the general practice consultation, so as to bring about an effective physician-patient

relationship, with respect for the patient's autonomy; to communicate, set priorities and act in partnership; to promote patient empowerment; and to provide longitudinal continuity of care as determined by the needs of the patient referring to continuing and coordinated care management.

Comprehensive approach includes the ability to manage multiple complaints and pathologies, both acute and chronic health problems in the individual, simultaneously; to promote health and wellbeing by applying health promotion and disease prevention strategies appropriately; and to manage and co-ordinate health promotion, prevention, cure, care, palliation and rehabilitation.

Community orientation includes the ability to reconcile health needs of individual patients with the community in which they live, in balance with available resources. Holistic approach includes the ability to use a bio-psycho-social model, taking into account cultural and existential dimensions (4, 6).

3   Family medicine and burnout

Risk factors

The work of physicians is strongly associated with intense emotional aspects of life, such as sickness and fear, and suffering and death (7). Many physicians have a strong personal ethical stance associated with kindness and desire to help and action to improve the lives of others. When physicians are faced with the problems or circumstances beyond the capacity to respond effectively, it can lead to demoralisation, which is a state of hopelessness and helplessness. Prolonged sensation demoralisation very likely results, leads or contributes to the burnout (8).

Factors that additionally burden the physicians, the growing dissatisfaction of the patients associated with the status and attitude of physicians, increasing administrative responsibilities and less influence over the process of work, difficulties in reconciliation between work and family, and institutionally-oriented society can also lead to the burnout (7).

Medical stress can be attributed to changes in organizational situations with a loss of autonomy and control by management, government, health insurance companies and pharmaceutical corporations while still demanding work, long hours, poor ergonomics, escape at work, personality and interpersonal problems (9).

It is believed that health workers have such personality traits that make them more susceptible to burnout (10). Physicians who have difficulties in controlling their own negative impulses, and in identifying and describing their own feelings are more prone to emotional exhaustion, depersonalization and low personal fulfilment (11).

Consequences of burnout

Burnout leads to reduced productivity in work 40. In general, the burnout in physicians does not differ from burnout in other professions, but in physicians it can have an adverse impact on patients' health. Thus, in addition to the fact that burnout negatively affects the health of physicians (1), it also affects their work satisfaction (12, 13), quality of work (13, 14), medical errors (14), dissatisfaction of patients (15), and referrals (16).

Prevalence of burnout in family medicine

Several studies have been performed on burnout in family medicine nationally and internationally (2, 17-24).

A cross-sectional survey of 160 physicians in Serbia also showed a significant correlation in the number of patients per day and the degree of emotional exhaustion (10).

The EGPRN study of burnout family physicians in 12 European countries showed that burnout was strongly associated with country and region, satisfaction at work, intentions of changing jobs, the need for sick leave, use of alcohol, tobacco and psychotropic drugs, and the minimum age and male gender. Family physicians from southern European countries had significantly lower values in the dimension of emotional exhaustion but also a lower estimate of personal fulfilment. A higher salary was weakly associated with emotional exhaustion (17).

Meta-analysis of 65 studies on burnout of physicians, which were published between 1991 and 2011, showed that emotional exhaustion was negatively associated with autonomy, positive attitude, quality, and safety culture. On the other side, it was positively related to the amount of work, forced organizational structure, conflicts in the workplace, low quality and low safety standards, negative attitudes towards work, mismatch between work and family life and the presence of mental illness. The same, but weaker links were also expressed by depersonalization (24).

A Slovenian study, which surveyed 223 pharmacists and 80 physicians found that physicians are much more dissatisfied with colleagues, with superiors, with their position within the team and with the imposed liability compared with pharmacists (25).

High emotional exhaustion, according to data from the study of burnout among Slovenian trainees in family medicine, is significantly affected by frequent (weekly) on-call jobs and a higher age of physicians. High depersonalization is significantly influenced only by frequent (weekly) on-call duty. They did not find statistically significant effects on low personal fulfilment (2).

A study among Slovenian family physicians showed that from 30-50% of physicians reported burnout in at least one dimension (26). A similar study also showed that family

physicians and family medicine trainees in Slovenia had higher levels of burnout when compared to their European colleagues (27).

4   Possibilities of prevention

In dealing with burnout, three principles are advised. First, prevention of burnout is a better strategy than waiting for the need of treatment. Second, expanding and building enthusiasm for the job is the best approach to preventing burnout. Third, organizational interventions are more effective than individual approaches (1, 26, 28).

Skills in interpersonal relations can be seen as an important protective factor in burnout, while the weak professional identity can be a risk factor. Higher emotional exhaustion may be caused by work on various job sites. In the case of professions with a mission (nurses and physicians) it would be advisable to promote the (permanent) learning skills in interpersonal relations and the use of adaptive strategies to deal with stress, such as various non-competitive physical activity, engagement in hobbies, strategy, coupled with the quality of everyday life, socializing and spending time in nature (28).

Particular emphasis should be placed on group cohesion (within clinics or health institution), as support staff often find it as a protective factor against burning out processes. Preventive effective assistance programs within professional organizations (as well as workshops to improve skills in interpersonal relationships, build teams, etc.) should be implemented since individual treatment / assistance is usually not sufficient (28).

Obstacle to improving the health of physicians is also resistance from physicians themselves to recognize health problems for fear of stigma or professional rejection (29).

5   Conclusion

In Slovenian family medicine, burnout is very common among trainees and also family medicine specialists. As this can seriously affect the quality of healthcare, this issue should be dealt with at different levels and by different stakeholders. Conditions for work should improve and burnout topics should be incorporated in education.

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Stress and Quality of Life in Nurses Working at Different Clinical Departments

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Abstract:

Purpose: Two research studies were presented, investigating the perception of work-related stress in 484 hospital nurses, and 133 hospital nurses' quality of life, in their associations with hospital department, level of education and age.

Methods: Data were collected in Study 1 by the Questionnaire on the nurses' professional role and status perception, created for the purposes of this research, and in Study 2 by the Questionnaire on demographic characteristics and work-related stress, and by the World Health Organization Quality of Life – Brief Version questionnaire, WHOQOL-BREF.

Results: In both studies, work-related stress was perceived by nurses as very high, while participants' average quality of life was good in all domains. The effects of hospital department in relation to work-related stress were confirmed. The effects of education level in relation to work-related stress were confirmed, although differently in two studies. The effects of age in interaction with education level were confirmed in relation to the nurses' quality of life. The most vulnerable group of nurses we found at older age in combination with lower education level.
Conclusion: Changes in nursing jobs organization are indicated, especially in hospitals, along with the planning of stress management interventions and education for nurses.

Keywords: • work-related stress • quality of life • hospital department • nurses • education level •

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1 Introduction

The purpose of this article is to present recent research results on work-related stress and quality of life in nurses from different hospital departments in Croatia, and with regards to their age and level of education.

Work-related stress usually results from the work environment. It is defined as the imbalance between work demands and a person's ability to respond to them, along with a person's appraisal of significant consequences following the unsuccessful response (1, 2). There are general stressors affecting employees in majority of work environments, but there are also the profession specific stressors. Health professions are considered highly stressful, due to their great responsibility in caring for people and their well-being. In comparison with other health professionals, nurses are in the most direct and the most frequent contact with patients (3-5). Different researches in Croatia have been investigating work-related stress among health professionals. The most frequent and intense stressors have been financial and organizational factors (1, 6, 7), followed by professional demands (8). In nurses, these are primarily related to harmful work environment: fear of contagion, exposure to radiation, cytostatic and inhalation anaesthetics. Nurses also frequently list: unplanned shifts; lack of staff; insufficient time for performing tasks; work during breaks; too much administrative tasks; overtime and shift work (9). High levels of work-related stress often result in lower retention of nurses at their jobs, especially in transitional countries where stressors are more often related to existential problems than in economically more developed countries (1, 10).

Harmful effects of stress on nurses' health and well-being have been confirmed in chronic conditions like headaches (11), low back pain (12), hypertension (13), physical (14) and emotional exhaustion (15). Also, a combination of high job demands and low control has been confirmed as risk factor for mental health problems in health professionals (16) and for risky health behaviours like smoking, obesity and alcohol abuse (17).

More recently, work-related stress is being researched in association with the overall quality of life in health professionals or with their quality of different life domains (18). Negative association of work-related stress and burn-out syndrome with overall quality of life in nurses was confirmed (19). Work environment conditions and working hours have been confirmed as risk factors for low quality of life in hospital nurses and female doctors (20, 21). Work-related stress and quality of life in nurses may be directly associated with the quality of care for their patients (22) and thus deserve the attention of researchers and employers.

Quality of life is a complex multidimensional construct. While it can be defined by the objective indicators (e.g. socioeconomic status), World Health Organization defines it emphasizing its subjective components, as individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns (23, 24). The association between objective

and subjective indicators increases only in unfavourable living conditions (25). Quality of life has been associated with some sociodemographic factors, e.g. with age in the negative direction (26, 27), and with education level in the positive direction (26, 27, 28), in many different social groups, and in health professionals, most often in nurses.

Since there is insufficient research in Croatia, the country in transition, connecting work-related stress and quality of life in nurses, the aim of this article is to present results of two recent research studies in Croatia, the first one aimed at investigating the perception of work-related stress in nurses employed at different hospitals in Croatia and with regards to their age and education level, while the second one aimed at investigating the work-related stress associations with hospital nurses' quality of life with regards to their age and education level. The research findings may be applied in the planning of the stress management interventions for the nursing professionals.

2   Methods:

Study 1:

Participants were 484 nurses (94% women), on average 40.5 years old (range 19-64 years), of which 226 (47%) employed at 11 hospital neurology departments in Croatia, and 258 (53%) employed at 48 other hospital departments in Croatia. There were 63% high school graduates and 37% university graduates. Data were collected by the Questionnaire on the nurses' professional role and status perception, created for the purposes of this research. For the purposes of this article, the selected data are presented. Work-related stress perception was assessed by the ten-point response scale (from 1 - indicating no stress to 10 - indicating the highest stress). The frequency of experiencing twelve listed sources of work-related stress was rated by the four-point response scale each (from 1= never to 4= often), the responses then summarized to the total score, ranging from 12-48. Higher score indicates higher frequency of experiencing work-related stress. The observed socio-demographic variables were participants' age and level of education (1= high school, 2= university).

Participation was voluntary and anonymous. Questionnaire was distributed in hospitals by members of a nurses' association, and announced to employed nurses where to get it and, when filled, to return it in sealed envelope, in a way that guaranteed anonymity. Ethical approval for the research was obtained from the Croatian Nursing Association.

Study 2:

Participants were 133 nurses (88% women), on average 40 years old (range 20-63 years), of which 57% high school graduates, and 43% university graduates, employed at the Clinical Hospital Centre Zagreb. Instruments were: Questionnaire on demographic characteristics (gender, age and education) and work-related stress (measured by the 5-point response scale, from 1 - indicating no stress to 5 - indicating the highest stress), and

the World Health Organization Quality of Life – Brief Version questionnaire (24), with the permission by the WHO. WHOQOL-BREF consists of 26 items assessing the quality of life in four domains: physical health (e.g.: "Do you have enough energy for everyday life?"), psychological health (e.g.: "How much do you enjoy life?"), social interaction (e.g.: "How satisfied are you with the support you get from your friends?"), and environment (e.g.: "How safe do you feel in your daily life?"), and two items rating the overall quality of life and general health; each item is rated on a 5-point response scale, from 1 - indicating the worse to 5 – indicating the best. Raw domain scores are summarized and then transformed to a 0-100 scale (as instructed by the manual). Higher score indicates better quality of life, and the domain score 60 and higher indicates good quality of life. Cronbach alpha values for each of the four domain scores ranged from 0.66 do 0.84 (29, 30), demonstrating good internal consistency, while in this research it ranged 0.52 do 0.80.

Participation was voluntary and anonymous. Research questionnaire was self-administered in a group setting, at the continuing education session for nurses, employees of the Clinical Hospital Centre Zagreb. Hospital ethical committee approval for the research was obtained.

3 Results

Descriptive statistics and bivariate correlations for the observed variables were calculated. Significance of differences in the observed variables was tested by the t-test and two–way analyses of variance.

Study 1:

Descriptive statistics for the observed variables is displayed in Table 1. Work-related stress perception in participants is rated very high, on average, with the neurological nurses' ratings significantly higher than the ratings of nurses from all other departments. Total work stress is experienced, on average, sometimes in all the participants, with the neurological nurses' ratings significantly higher than the ratings of nurses from all other departments. When the two groups are compared with regards to individual sources of work stress, the neurological nurses experience work stress significantly more frequently than the other nurses regarding: physical (t-test=4.34; $p<0.01$) and psychological demands (t-test=3.19; $p<0.01$), environmental conditions (t-test=5.92; $p<0.01$), work hazards (t-test=2.25; $p<0.05$), patient relationship (t-test=3.09; $p<0.01$, night work (t-test=2.86; $p<0.01$) and unclear competencies (t-test=2.03; $p<0.05$).

Table 1. *Descriptive statistics for the observed variables and t-test for means' differences between neurological nurses and other nurses (N=484)*

Variables	Hospital department	M	SD	t-test
Stress perception[a]	neuro	8.1	1.66	3.05**
	other	7.6	1.98	
Work stress experience[b]	neuro	35.3	6.67	3.13**
	other	33.2	6.96	

[a] *= range 1-10;* [b] *= range 12-48; M= Mean; SD= Standard Deviation; **=p<0.01*

Stress perception and work stress experience are significantly moderately correlated (Pearson r=0.42; p<0.01). Participants' age and stress perception correlate significantly, although weakly (r=0.12; p<0.01). Total work stress experience correlation with individual sources of work stress is moderate to high (r=0.52 to .74; p<0.01) and significant.

In order to test the association between participants' hospital department (neurology or other), education level (high school or university), and age (younger or older than 40 years), as independent variables, with their stress perception and work stress experience, as dependent variables, two-way ANOVAs were performed.
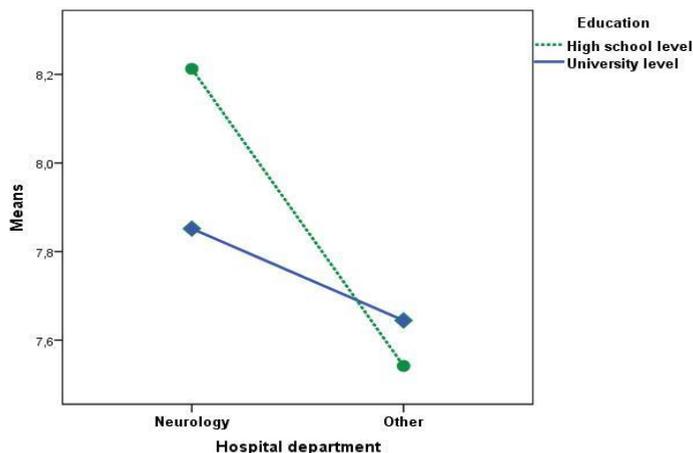
Figure 1. Association between participants' hospital department and education level with relation to stress perception: 2-way ANOVA results
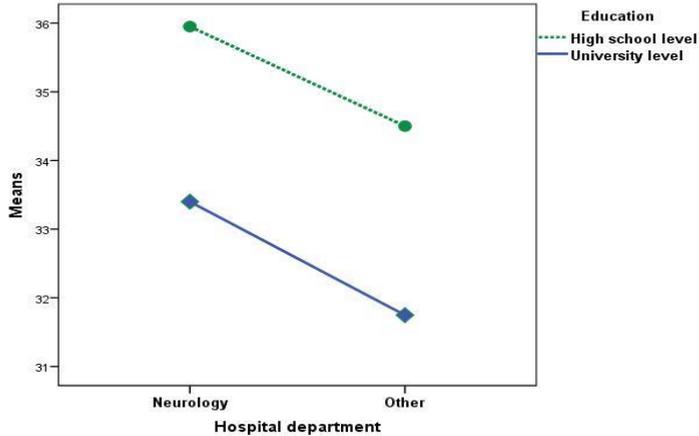
Figure 2. Association between participants' hospital department and education level with relation to work stress experience: 2-way ANOVA results

Significant main effects of hospital department were found in relation to stress perception (Figure 1) and in relation to work stress experience (Figure 2). Participant neurology nurses perceive their work-related stress significantly higher (F=5.60; p<0.05) and experience work stress significantly more frequently (F=4.64; p<0.05) than participants from other hospital departments.
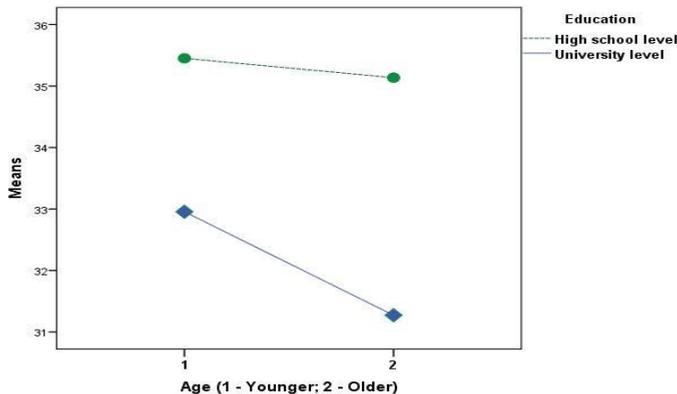
Figure 3. Association between participants' education level and age category with relation to work stress experience: 2-way ANOVA results

Significant main effect of education level was found in relation to work stress experience (Figure 3). Participant nurses with high school education level experience work stress significantly more frequently than those with university education level (F=20.69; p<0.001). No significant main or interaction effects of age category and education level were found in relation to stress perception. No significant interaction effect of hospital department with education level was found in relation to work stress experience.

Study 2:

Participant nurses rated as fairly good their overall quality of life (M=3.7; SD=0.75) and general health (M=3.7; SD=0.96). Descriptive statistics results show very high average level of work-related stress and good average quality of life in all domains (Table 1).

Table 2. Descriptive statistics for the variables: Work-related stress and Quality of life domains (N=133*)*

Variables	M	SD	TR
Stress	4.2	0.97	1-5
Physical health	69.1	16.44	0-100
Psychological health	70.4	15.10	0-100
Social interaction	69.7	19.43	0-100
Environment	63.83	16.09	0-100

M= Mean; SD= Standard Deviation; TR= Theoretical Range

Although good (>60), the average quality of life in the environment domain is significantly lower in comparison to all other domains: physical health (t-test=4.82; p<0.001), psychological health (t-test=6.29; p<0.001) and social interaction (t-test=4.01; p<0.001).

Table 3. Bivariate correlations (Pearson r) between the observed variables (N=133)

Variables	1	2	3	4	5	6	7
1 Age	1						
2 Education	.06	1					
3 Stress	.14	.19*	1				
4 Physical health	.05	.14	-.28**	1			
5 Psychol. health	-.04	.17*	-.17*	.63**	1		
6 Social interaction	-.17*	-.02	-.06	.46**	.59**	1	
7 Environment	-.01	.02	-.37**	.69**	.70**	.57**	1

*=p<0.05; **=p<0.01*

Work-related stress positively and significantly correlates with education, and negatively with three quality of life domains: physical health, psychological health and environment (Table 3). Participants' age negatively and significantly correlates with social interaction domain. Education level, apart from correlating with stress, also correlates positively and significantly with psychological health domain. All these correlations are weak. Correlations between quality of life domains are moderate to high (r=0.46-0.70), positive and significant, because they are the components of the same concept and measurement instrument.

In order to test the association between participants' age (younger or older than 40 years) and education level (high school or university), as independent variables, with their work-related stress perception and quality of life in four domains, as dependent variables, two-way ANOVAs were performed.

No significant main or interaction effects of age category and education level were found in relation to participants' work-related stress perception. Likewise, no significant main or interaction effects of age category and education level were found in relation to participants' quality of life in the physical health domain.

Significant interaction effects of age category with education level were found in relation to three quality of life domains, all in the similar direction. Older age category participant nurses with high school education level rated their quality of life in psychological health domain (F=4.54; p<0.05) (Figure 4), social interaction domain (F=4.55; p<0.05) (Figure 5), and environment domain (F=5.61; p<0.05) (Figure 6) significantly lower than younger age category participant nurses with university education level. No significant main effects of age category or education level were found in relation to these three quality of life domains.
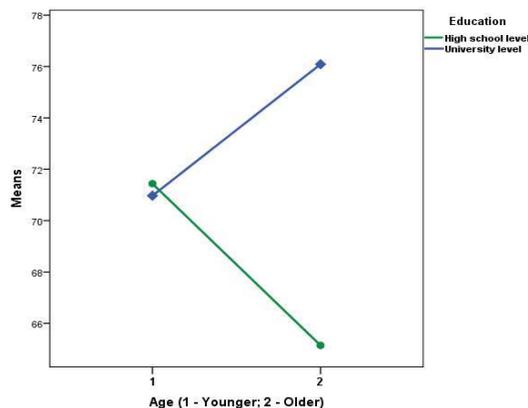
Figure 1. Association between participants' age category and education level with relation to quality of life in psychological health domain: 2-way ANOVA results
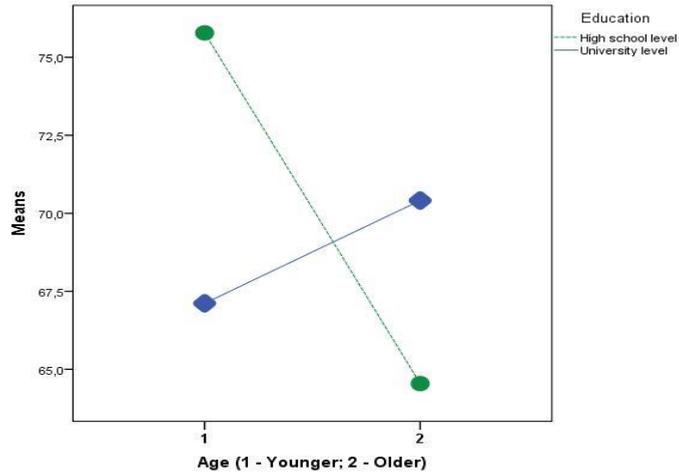
Figure 2. Association between participants' age category and education level with relation to quality of life in social interaction domain: 2-way ANOVA results
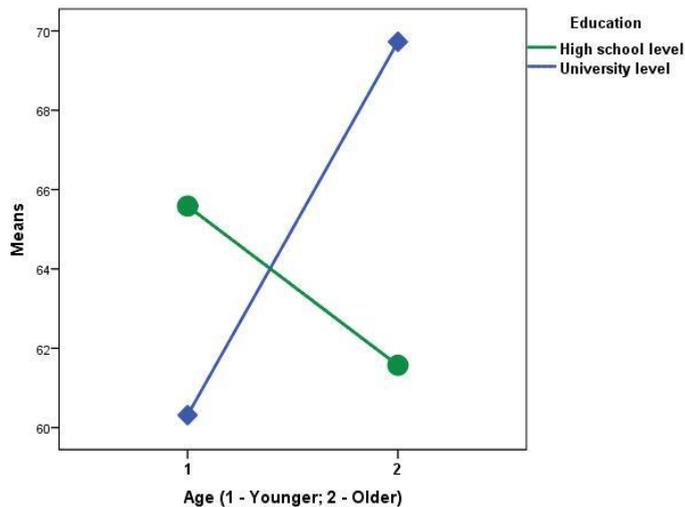
Figure 3. Association between participants' age category and education level with relation to quality of life in environment domain: 2-way ANOVA results

4   Discussion

The presented research studies investigated the perception of work-related stress in hospital nurses, and hospital nurses' quality of life, in their associations with hospital department, level of education and age.

In both studies, work-related stress was perceived by nurses as very high, a finding confirmed by other research (3, 5, 21). Work-related stress correlated negatively with three quality of life domains: physical health, psychological health and environment. Physical and psychological work demands, environmental conditions, work hazards, patient relationship, night work and unclear competencies were rated as frequently experienced sources of stress in Study 1, that may affect nurses' quality of life, and their health as well, which was also confirmed by other similar research (11-13, 17).

The effects of hospital department in relation to work-related stress were confirmed in Study 1. Participants employed at neurology departments perceived their work-related stress significantly higher and experienced different sources of work stress significantly more frequently than participants from other hospital departments.

The effects of education level in relation to work-related stress were confirmed, although differently in two studies. In Study 1, participant nurses with lower, high school education level, experienced different sources of work stress significantly more frequently than those with university education level. In Study 2, higher work-related stress perception was correlated with nurses' higher education level. It may be associated with the participants' different job positions and responsibilities in two studies, which needs to be further analysed.

The findings of Study 2 confirmed participants' good average quality of life in all domains, with the average quality of life in the environment domain rated lowest.

The effects of age in interaction with education level were confirmed in Study 2, in relation to the nurses' quality of life. Participants of older age and lower, high school education level rated their quality of life in psychological health domain, social interaction domain, and environment domain lower than younger participants with university education level. Higher nursing education provides better professional competencies, more self-confidence and better stress coping strategies, which have all been related to better work performance (26-28, 31), and consequently, possibly, to better quality of life. Although the applied research questionnaire is not a measure of work specific quality of life, but rather of general one, it may be also assumed that nurses' quality of life affects their quality of patient care. However, since quality of life is a complex phenomenon, further research of these associations is needed.

The important contribution of these research findings is in the explanation of some complex interactions of nurses' place of work, education level and age in relation to work-

related stress and quality of life. The specific place of work, e.g. neurology departments in this case, should be observed with all its organizational, environmental and relational particularities in comparison to some other work places. Also, nurses' education level correlated differently with the perceived work-related stress in two studies. However, in both studies, the most vulnerable nurses regarding work-related stress and quality of life seem to be of older age in combination with lower education level. This finding may be resulting from organizational problems in Croatian hospitals, where nurses with different education level perform the same jobs – from ward jobs to nursing management jobs. Indication of the need for changes in nursing jobs organization is clear, and specifically in hospitals.

Results of these studies can also be useful for planning stress management interventions and education for nurses. Higher education programs and continued education assure nursing profession development (32), which enhances both personal job satisfaction and the advancement of health care in general.

Limitations of these research studies should be mentioned. These are correlational studies that do not allow for causal conclusions. All measures rely on self-ratings so caution in conclusions is advised. The participants′ samples are convenient ones, thus not allowing for generalizations to all hospital nurses or nurses from other health institutions.

5   Conclusions

Two research studies were presented, investigating the perception of work-related stress in 484 hospital nurses, and 133 hospital nurses' quality of life, in their associations with hospital department, level of education and age.

In both studies, work-related stress was perceived by nurses as very high, while participants' average quality of life was good in all domains. The effects of hospital department in relation to work-related stress were confirmed. The effects of education level in relation to work-related stress were confirmed, although differently in two studies. The effects of age in interaction with education level were confirmed in relation to the nurses' quality of life. The most vulnerable nurses regarding work-related stress and quality of life seemed to be of older age in combination with lower education level.

Changes in nursing jobs organization are indicated, especially in hospitals, along with the planning of stress management interventions and education for nurses.

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The Hospital: A Story About a Place of Psychosocial Crises and How to Handle Them?! – Challenges for Patients and Staff

CHRISTIAN VAJDA

Abstract Hospitals are stressful settings with a high amount of negative emotions. Both, patients and health care professionals have to deal with feelings of anxiety, anger, despair and hopelessness. While patients can have a worse clinical outcome by psychophysiological reasons and errors by i.e. depressed physicians, doctors are facing lower job satisfaction, problems in private life and reduced mental health.

Keywords: • emotion • hospital • mental health • health care professionals • stress •

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1 Background

Hospitals are settings of psychosocial challenges for patients as well as health care professionals. Patients are confronted with severe diagnoses, need for care and disease management. On the other hand physicians, nurses and other health professionals have to deal with a variety of stressful situations in context of their daily routine like time pressure, insufficient treatment, bringing bad news and the death of patients. Negative emotions i.e. anxiety, depressed mood and/or anger can be noticed on both sides, which may come along with feelings of hopelessness, loss of autonomy and desperation (1-4).

Against the fact that these kinds of emotions are a common part of the work in health care, especially, verbalized negative emotions are often negated or ignored in the clinical setting (5-6). Furthermore, emotions like anger are sometimes misinterpreted by staff members as a personal attack instead of interpreting it as a possible sign of hopelessness of the patient´s situation. Conflicts between patients and health care professionals can grow and may have an impact on health care professional - patient relationship and treatment (7).

Beside the emotional consequences the subjective burden of stress can lead to negative impacts on clinical outcomes like prolonged wound healing or myocardial infarction by psychophysiological reasons (8-9). Consequences of the high emotional pressure on the side of care givers can be lower job motivation, increased psychological symptoms and a negative impact on private life (10). Depression and burn out are severe problems in health care employees (11-14). While burn out comes along with depersonalization, a low personal accomplishment and emotional exhaustion which can worsen empathy of the staff members (15,16), depression of physicians can have severe impact on patient´s health by medication errors (17). On the other hand a positive doctor-patient-relationship can improve patient satisfaction, quality of life, adherence and decrease of symptom burden. (18)

2 How to deal with psychosocial challenges?

Examples of possible protective factors and interventions are given below.

- Doctor-Patient Communication

  Recognizing emotions in clinical routine and talking about them can be a useful method to reduce internal tension, anxiety, rumination or anger in patients and health care professionals and can help to clarify misinterpreted signs and behaviours. Furthermore, it is an essential part of anamnesis in clinical routine with high impact on adherences in the doctor-patient communication. Different techniques are available, i.e. NURSE (19).

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- Professional exchange - Balint groups
  Established by Dr. Michael Balint these kinds of groups are used to discuss experiences in daily care, which had an impact on the personal feelings/emotion and reflect the health employees/patient relationships. Psychoanalytic concepts like free association are used to discuss influences of unconsciously reasons for i.e. emotional reactions to specific situations and patients/staff members in the context of care (20).

- Relaxation techniques

  Different techniques for relaxation can be helpful. Examples are "Progressive muscle relaxation" by Edmund Jacobsen (1908), "Autogenic training" by Johannes Heinrich Schultz (1932) and "Mindfulness-Based stress reduction" (MBSR) by Jon Kabat-Zinn (1970) (21-23).

- Psychiatric/Psychosomatic conciliar/liaison concepts

  As an intervention of organizational level these kinds of clinical concepts are an essential part in psychosocial crisis intervention by pharmacological and/or psychotherapeutic support of patients and staff members (24).

3   Conclusion

Care givers in medical healthcare suffer from psychosocial burden. Concepts and techniques to handle it are established and can be useful to a certain degree for amount of associated symptoms and subjective burden (25). Individual and setting interventions - prevention and acute intervention - are necessary to strengthen mental health in health care professionals and patients (26). Furthermore it is important to raise the perception and acceptance of mental health issues in health care, not only for a better patient care but also for a higher satisfaction and health of staff members.

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How to Be Enthusiastic if Nobody in the Team has Job Satisfaction?

VOJKO KANIČ

Abstract:

In our article we present a overview of physician′s satisfaction, understood in terms of three dimensions: job, career and work. We realize that physician satisfaction impacts all participants in health care system; it changes physician′s contacts with patients, patients′ satisfaction with health care and their adherence to treatment, and finally, it is reflected in the level of enthusiasm and efficiency of medical team, as well as in physician′s well- being, personally. The link between his/her dissatisfaction and occurrence of burnout is highlighted, whereby the reasons should be sought also in organizational aspects and prevailing style of leadership in healthcare institution.

Keywords: • physician′s satisfaction • burnout • medical team • patient′s adherence • leadership •

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1   Introduction

When starting medical education, the dream of most health professionals is »to help the patient«. During their long education, they recognise that a lot of hard work and self-denial is needed to achieve this goal, or at least partially. "To help the patient" is usually at the top of the personal ethical values of health professionals. Furthermore, if this goal is effectively reached, the satisfaction of the medical team is priceless. Whenever this goal is reached, the medical team is filled with a feeling of competence or is fulfilled and feels competent. This satisfaction is actually the most important "drive" for good medical practice. When people in the medical team are not satisfied, this influences their quality of work, patients' or patient care or patient satisfaction and the medical care professionals themselves (1-3).

2   Job satisfaction

Relationship to health professional values

Medicine and other health professions are based on ethical standards and values that have many similarities (3). These standards all emphasise a common theme: the obligation of physicians to strive to aid those seeking their help (3). This is usually termed beneficence. Justice, autonomy, confidentiality, non-maleficence and beneficence stand as ethical imperatives and guiding principles for the entire medical profession (3).

Relationship to individual values

Health professionals are not all alike. Basic professional value orientation is similar and while all would subscribe, to some degree, to basic professional value orientations such as beneficence, personal value orientations are also important in relation to professional satisfaction (3).

Professional satisfaction

Professional satisfaction is defined in terms of three dimensions: job, career and work (2). Job satisfaction is satisfaction with one's actual job, including such aspects as salary and work schedule (2). Work satisfaction refers to satisfaction with the content of the work performed – the clinical and administrative work involved in being a trained physician (2). If the physician is happy with his/her career trajectory and the sum of his/her career experience over time, then his/her career satisfaction is high (2). All three dimensions of satisfaction are associated with patient satisfaction in a positive way (2, 4).

Variables related to physician satisfaction

Autonomy – greater professional autonomy brings greater professional satisfaction (2) In the modern world of medical guidelines, professional autonomy has diminished in favour of safety and autonomy becomes more and more doubtful – therefore, more and more

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important for the physician (5). Higher income leads to greater professional satisfaction (2, 6). Gender and age are not associated with professional satisfaction (2-4). Job-related perceptions and objective job demands as well as stress are important for satisfaction. (2).

Physician professional satisfaction and the patient

Patients of professionally satisfied physicians are more satisfied with their treatment (4). Their adherence to treatment is also higher (2). It is not unreasonable to suggest that there is a symbiotic relationship between physician health and patient outcomes (7).

Physician professional satisfaction and the medical team

Modern healthcare is team – based care, with the physician being the team leader. However, physicians are not trained to adequately develop their leadership skills, but they are expected to be leaders. (7). Physicians' professional satisfaction is at the heart of the type of leadership needed in team-based medical care (2). Therefore, unless the physician is satisfied, the medical team will not be satisfied.

Physician professional satisfaction and the physician

The vast majority of the physician's life is usually guided by ethical standards and values (3). Values are described as "*guiding principles in the life of a person or other social entity" that are considered "desirable trans-situational goals*" (3) The values are universal and enduring; they motivate action and serve as a standard for judging one's own and others' actions (3).

In recent decades, the average workplace has become less stable, the employment conditions have deteriorated and levels of job satisfaction have declined (1)

When important goals, needs and values are threatened in values-related conflicts with employers, organisational, bureaucratic and social systems, the danger of demoralisation and burnout in healthcare personnel is increased (3).

Demoralisation is described as a "*feeling state of dejection, hopelessness and a sense of personal incompetence that may be tied to a loss of or threat to one's own goals or values*" (3). Demoralisation is associated both with an individual's "moral" conduct, values, beliefs or goals and with a loss of "morale" or confidence (3). This may lead to a feeling of subjective incompetence – "a self-perceived incapacity to perform tasks and express feelings deemed appropriate in a stressful situation." (3). Demoralisation in the long term leads to burnout (3).

Consequences for the medical team

The incongruity or incompatibility of the values of healthcare institutions and the medical team values are predictive of exhaustion, depersonalisation (cynicism) and feelings of

inefficacy (1, 3).This is strongly associated with psychological problems, burnout, poor self-esteem, depression and anxiety (8). It also leads to higher fast-food consumption, infrequent exercise, higher alcohol consumption and more frequent use of painkillers (7). In addition, an increased number of doctor visits and number of sick days annually were observed with decreased job satisfaction (1).

Consequences for patients

It is ineffective, costly and also dangerous to expect physicians to deliver safe, efficient and patient-centred care while they are becoming increasingly burnt-out (7). This results in suboptimal patient care and medical error, as well as maladaptive coping strategies among physicians, which serve to exacerbate the former (7).

3   Conclusion

Currently, all evidence with regard to causal factors associated with physician satisfaction indicates that burnout is an organisational, rather than an individual, problem (7). It is related to the working environment and organisational culture (7). The style of leadership in a healthcare organisation plays a pivotal role in the physicians' satisfaction (7).

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The Physicians Burnout, Its Unintended Consequiences, Barriers in Seeking Help, and the Questions of Solutions

ZLATKA RAKOVEC-FELSER

Abstract:

The professional staff in human service institutions is often required to spend time in intense involvement with other people. Frequently, the medical staff-patient interaction is centred on the patient′s current problems (physical, but also psychological or/and social) and is therefore charged with feelings of anger, embarrassment, fear or despair.

In this article we follow the job burnout as a consequence of a disturbed balance between give and take at all three levels of social exchange – at an interpersonal, medical team, and an organizational level. Burnout phenomenon is seen not only as the problem of individuals but also as the problem of social environment in which they work. We describe its possible kinds of manifestations and present the research data of burnout prevalence among physicians, nurses and medical students around the world, its consequences for individual′s well-being as well as the obstacles to seek help for oneself in a time.

Keywords: • burnout manifestations • burnout prevalence • social exchange • imbalance • burnout consequences •

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1 Burnout signs and manifestations

More than 100 symptoms and possible consequences have been associated with burnout, ranging from anxiety to lack of zeal. Although the number and the variety of these phenomena look rather impressive at first glance, it should be noted that many symptoms come from uncontrolled clinical observations or from interview studies with an impressionistic or unspecified analysis of the data (1).

Manifestations of **burnout signs** are grouped for convenience into five major categories: **affective, cognitive, physical, behavioural and motivational**. Typically, manifestations not only appear at the individual level, but also at the interpersonal and organizational level (2).

1.1   Mental manifestations: Typically, the burned-out person's emotional resources are exhausted and he/she feels empty, trapped and at the end of their rope. Affective symptoms that relate to depression are most prominent (depressed mood, helplessness, hopelessness and meaninglessness). A sense of failure, insufficiency and sexual disturbances is observed, which eventually leads to poor self-esteem (2, 3). The second type of affective symptom relates to aggression and anxiety. The burned-out person's frustration tolerance is diminished. He/she is irritable, over-sensitive and behaves in a hostile or suspicious manner, not only towards patients, but also towards colleagues and superiors. In addition, cognitive symptoms (inability to concentrate, forgetfulness, difficulties in decision making) and sensory-motor symptoms (nervous tics, restlessness, inability to relax) may be observed too (2, 3, 4).

1.2   Physical manifestations: The most typical physical manifestation of burnout is chronic fatigue. Other frequent symptoms include headaches, nausea, muscle pains, particularly lower back pain, sexual problems, sleep disturbances, loss of appetite and shortness of breath (2, 3, 5). The burnout signs may be also a strong predictor of coronary heart disease incidence. It was found that individuals with high levels of the burnout have a significantly higher risk of developing coronary heart disease compared with those with low levels of burnout (6,7, 8).

1.3   Behavioural manifestations: In persons with higher level of emotional arousal as a consequence of burnout the increased consumption of stimulants like coffee and alcohol was found. Nowack and Pentkowski found that the occurrence of burnout is linked with substance abuse. Nowack, Hanson, and Gibbon noted that physical activity and adequate diet are negatively related to burnout (2).

1.4   Social manifestations: The burned-out health care professionals withdraw from social contacts and are in danger of isolating themselves. At work, one of the most obvious characteristics of burnout is the decreased involvement with patients (not moved or touched by anything she/he gets involved in during his duty). Burned-out individuals

might take their work problems home. These problems come to dominate their family life and might also increase interpersonal conflicts with spouse and children (2).

1.5   Attitudinal manifestations: The most characteristic sign of burnout is a dehumanizing, callous, detached, indifferent and cynical attitude towards patients, e.g., "that ulcer from room 34". Such negative attitudes are particularly striking since the initial relationship with patients was characterized by involvement, empathy, concerns and understanding. Negative attitudes might also develop towards the job or the organization. The person's initial intrinsic motivation has vanished; his/her zeal, enthusiasm, interest and idealism are lost (2, 6).

2   Burnout prevalence in healthcare professionals

2.1. The three-dimensional conceptualization of burnout including the scales of emotional exhaustion, depersonalization and (reduced) personal accomplishment Maslach Burnout Inventory (MBI, Maslach and Jackson) largely dominates in studies of burnout. It was used also in research at Mayo Clinic in 2011 and 2014 (9). Among 7288 included physicians in 2011 it was found that 37.9 percent of them have high level of emotional exhaustion, 29.4 percent of them show signs of depersonalization, and 12.4 percent of them have a low sense of personal accomplishment. In aggregate, 45.8 percent of physicians were considered to be experiencing at least 1 symptom of burnout based on a high emotional exhaustion score or a high depersonalization score, and 39.8 percent of them responded that they were burned out. Burnout reported more female physicians than male physicians (45 percent vs 37 percent). The rate of burnout peaks in midlife (46-55 years). The highest rates are incurred by physicians at emergency medicine and at primary care (9).

Study was repeated with 6880 included physicians in 2014 and data were compared with data in 2011 and with samples of working US adults. From 2011 to 2014 the percentage of physicians experiencing at least 1 symptom of burnout increased significantly (45.8 vs 54.4 percent). The extent of physicians with a high level of emotional exhaustion increased from 37.9 to 46.9 percent, as well as those with high level of depersonalization (29.4 vs 34.6 percent), and with a low score for personal accomplishment (12.4 vs 16.3 percent). In contrast to them, working adults in the general population experienced only minimal changes in burnout or work–life balance satisfaction between 2011 and 2014 (28.4 vs 28.6 percent). Furthermore, in all 24 medical specialties extent of burnout increased, nine of them even more than ten percent: *family medicine* (51.3 vs 63.0 percent), *general paediatrics* (35.3 vs 46.3), *urology* (41.2 vs 63.6 percent), *orthopaedic surgery* (48.3 vs 59.6 percent), *dermatology* (31.8 vs 56.5 percent), *physical medicine and rehabilitation* (47.4 vs 63.3 percent), *pathology* (37.6 vs 52.5 percent), *radiology* (47.7 vs 61.4 percent), and *general surgery subspecialties* (42.4 vs 52.7 percent). In the work-life balance portion of the study, *the incidence of physician satisfaction decreased overall* (48.5 percent vs 40.9 percent), except in obstetrics/gynaecology and general surgery. The analysis for age, gender, relationship status, and hours worked per week, show that physicians have a risk of burnout twice as great as that of the broader US population, and

their satisfaction with work-life balance is one-third less than that of the broader population (10).

Studies show that burnout is high also among European family medicine doctors: 43 percent with high scores on *emotional exhaustion,,* 35 percent on *depersonalization,* 32 percent on low *personal accomplishment, and* 12 percent with high burnout in all three dimensions. It seems to be associated with personal and workload indicators, job satisfaction, intention to change job and the abuse of alcohol, tobacco and medication (11). In a meta-analysis by Purvanova et al. including studies covering a range of professions, male doctors with signs of burnout showed higher degrees of *depersonalization* whereas female doctors showed a higher *emotional exhaustion* (11, 12). The burnout and satisfaction scores strongly correlated with the leadership dimensions of supervisors (11, 12). Authors considered that the findings have important implications for the selection and training of physician leaders and provide new insights into organizational factors that affect physician well-being (12).

2.2. However, it is becoming increasingly evident that many physicians begin to experience burnout already during their studies. A systematic review made by IsHak et al. show that around 49 percent of medical students in the USA and 28 to 61 percent Australian medical students, verified with Maslach Burnout Inventory, suffer from burnout signs (13). Similarly, English research performed by Cecil et al. has shown that 54.8 percent of included medical students reported high levels of emotional exhaustion, 34 percent reported high levels of depersonalisation, 46.6 percent have a low sense of personal accomplishment, and overall, 26.7 percent participants met the criteria to be considered "burned out". Linear regression analysis revealed that year of study, physical activity, and smoking status significantly predicted the emotional exhaustion whilst gender, year of study, and institution significantly predicted the depersonalisation. Personal accomplishment was significantly predicted by alcohol binge score, year of study, gender, and physical activity. In summary, this study has indicated that specific demographic, lifestyle, and behavioural factors, including physical activity, sweet or savoury food consumption, alcohol bingeing, gender, year, and institution of study may predict medical student's experience of burnout components (13).

2.3. Among nurses a study conducted in 12 participating European countries in 2011 showed that approximately 30 percent of nurses surveyed reported being exhausted or fatigued due to work activities (14, 15, 16). In addition, the research at King's College London in 2012 found that nurses in the UK demonstrate the highest rates of work-induced stress in Europe, with 42 per cent describing themselves as burned-out (with 32 percent day shifts and 36 percent of night shifts lasting 12 hours or more). Potential risk factors for job dissatisfaction, stress and burnout among nurses to British studies are *long shifts, overtime, weekends, nights, holidays and weekend overtime, high physical and emotional demands* (14, 15, 16).

Many other studies have indicated that the prevalence of burnout is higher among nurses who work in especially stressful settings, such as *oncology, mental health, emergency medicine or critical care.* It was found also that well over half (56 percent) have experienced verbal or physical *violence* from patients or service users and almost half (48 percent) have done so from relatives of patients/ service users (16, 17).

Nurses in Greece reported a particularly high level of nurse burnout, dissatisfaction, and intention to leave; 78 percent of them regarded themselves to be burned-out; nearly half described their wards as providing poor or fair quality of care, and almost one fifth gave their hospitals a poor or failing safety grade (16, 17).

In the Netherlands, nurse burnout, dissatisfaction, and intention to leave were lower than most countries, but these rates still ranged from 10 percent to 19 percent (those who intended to leave their job). The percentage of burnout and dissatisfied nurses in the US was close to the European median, but the percentage of US nurses intending to leave their jobs was lower than in all European countries. The quality of the hospital work environment (managerial support for nursing care, good doctor-nurse relations, nurse participation in decision making, and organisational priorities on care quality) were significantly associated with patient satisfaction, quality and safety of care, and nurse workforce outcomes (15, 16, 18).

3   Consequences of physicians' burnout

Especially physicians' burnout negatively impacts not only their professional relationships with patients, undermines teamwork and raises the problems in communication with colleagues; it has negative consequences also for them personally. It could leads to undesirable behaviour, poor self-image, depression and even to the suicidal ideation (19). Carpenter et al. and Torre et al. found that physicians globally have a lower mortality risk from cancer and heart disease relative to the general population (presumably related to knowledge of self-care and access to early diagnosis), but they have a significantly higher risk of dying from suicide (19, 20, 21). Schernhammer and Colditz who performed meta-analyses of 25 studies physicians' suicide rate published in/or after 1960, mainly in northern European and North American countries, found a relatively stable accumulation of evidence for an approximately 40 percent higher risk of suicide among male physicians comparing the men in the general population throughout the study period, whereas that of female physicians is a staggering 130 percent higher than among women in the general population (19, 20, 21, 22). In a systematic review Lindeman et al. estimated physicians' relative suicide risk at 1.1 to 3.4 for men and 2.5 to 5.7 for women when the rates were compared with those for the general population and at 1.5 to 3.8 for men and 3.7 to 4.5 for women when the rates were compared with those for other professionals. Large English study from 1979 to 1995 confirmed elevated rates of suicide in female but not in male physicians (19, 20, 21, 22).

Research data show a suicide risk also for those at an earlier period of medical education. In a 2007 study of seven U.S. medical schools with approximately 4.300 students

participating has revealed that 49.6 percent of all included students show the burnout signs. Besides psychological symptoms such as anxiety, depression, sleep deprivation, and a perceived lack of control over schedule, 11.2 percent of them expressed a suicidal ideation and about 11 percent of them admitted a serious consideration of dropping out of medical school. The presence of burnout altered their specialty choice, impaired academic performance, competency, and professionalism (23). Compton, Goebert, and Smith found that suicidal ideation was predicted by perceived lack of control, certain personality traits, negative life events, anxiety and depression. It was also found that students reporting suicidal ideation are for about 15 percent more likely to use tobacco, alcohol, illicit drugs, and to engage in other risky health behaviours (23). Dyrbye et al. pointed out that 26.8 percent of students with burnout signs later recovered and with their recovery the suicidal ideation was reduced (23).

Although medical students seem to have increased rates of depression and suicidal ideation compared to the general population they are no more likely to seek treatment (23, 24). It was found that only 22 percent of depressed students seek care due to concerns about confidentiality, stigma associated with using mental health services, cost, fear of documentation in the academic record, and fear of unwanted intervention (23, 24, 25).

The authors have found there are barriers to seek help to both types of help-seeking (i.e. both for general health care as well as specifically for mental health care), but the difficulties in asking for help in mental distress are greater. Schwenk 2008 reported that 24.6 percent of doctors with moderate to severe depression would not seek depression care due to concerns about losing medical staff privileges and 18.4 percent would not seek care due to concerns about losing their medical licence. These rates were significantly higher than reported in doctors with minimal to mild depression. Almost a quarter of doctors with moderate to severe depression reported seeking care outside of their medical community, although it is unclear if the remaining doctors sought care within their medical community or did not seek any care at all. This was significantly higher than the rates reported in doctors with minimal to mild depression. (24, 25).

Van der Bijl and Oosthuizen 2007 reported that 34-41 percent of medical students, 24.6 percent of doctors with moderate to severe depression, 18.4 percent of doctors with mild to moderate depression and 17 percent of doctors in general would not seek help for depression.

Rong 2009 reported that 34.0 percent of Australian medical students would not seek help for depression. This was compared with 41.2 percent of Chinese medical students. The mental health professionals that Australian medical students were most likely to see were GPs (82.3%), counsellors (54.1%), psychologists (53.9%) and psychiatrists (48.1%). Chinese medical students were significantly less likely to seek help from a GP, but significantly more likely to seek help from all other mental health professionals. Australian medical students were most likely to seek help from a friend (88.1%) and family (83.8%), while Chinese medical students were significantly more likely to see help

from naturopaths/herbalists and personal trainers when compared to Australian students (25).

4   Barriers to seek help for mental health care

In every population, suicide is almost invariably the result of untreated or inadequately treated depression or other mental illness that may or may not include substance or alcohol abuse, coupled with knowledge of and access to lethal means (22, 24, 25).

A survey of American surgeons revealed that although 1 in 16 had experienced suicidal ideation in the past 12 months, only 26 percent had sought psychiatric or psychologic help. There was a strong correlation between depressive symptoms, as well as indicators of burnout, with the incidence of suicidal ideation. More than 60 percent of those with suicidal ideation indicated they were reluctant to seek help due to concern that it could affect their medical license (24, 25).

A number of barriers to help-seeking in the medical profession were identified. These included concerns about stigma, career development, impact on colleagues, and impact on patients, confidentiality, embarrassment and professional integrity. General practitioners were concerned about the potential impact on their practice. Psychiatrists were concerned about potential career implications. In general, doctors were less likely to seek help from colleagues and professional institutions due to concerns regarding professional integrity and career development, while they were less likely to seek help from family and friends, or not seek help at all, due to concerns regarding stigma and embarrassment (25).

White 2006 and Hassan 2009 revealed that doctors would not disclose their mental illness to family or friends due to career implications (34.2%), professional integrity (26.7%) and stigma (21.1%). The most frequent reasons for not disclosing to colleagues were professional integrity (47.8%) and career implications (32.1%). This was similar for professional and governmental institutions. The most common reason for not disclosing a mental illness to anyone was stigma (34.4%), (25).

Thompson in 2001 has identified that the acknowledging of psychological illness is extremely difficult for GPs. Psychiatric illness was seen as a weakness if it occurred to themselves. Paradoxically, they reassured patients that "it's just another illness". Concerns about confidentiality emerged as another factor affecting their use of psychiatric services. Doctors felt they shouldn't be sick, and made comments such as "you don't want to go and see your local psychiatrist in case one of your patients is sitting beside you". Embarrassment was also a barrier to consulting other general practitioners and specialists about psychiatric illness in themselves or their families (25).

5   Conclusion

Healthcare providers and staff are the proximal reason for the quality of care provided to patients. Series of health care reform and other value-based initiatives have added new levels of significant complexity to health care delivery. The regulatory and insurance state forces that do not coordinate well with one another resulting in disparate, conflictual, or confusing mandates and trigger the cumulative chronic high-level stress. Each has authoritative capital. Together they have potential to affect healthcare workers on a personal, physical, emotional and cognitive level which in turn adversely affects care relationships and quality of patient care.

Solutions are in the realms of both organizational and individual solutions.

Hospitals and healthcare systems can reduce stress on physicians by centrally taking on the responsibility to assist physicians with administrative support necessary to streamline the accomplishment of mandates and regulations (reduces extraneous cognitive load). The key is also authentic leadership where leaders are supposed to balance the job demands and job resources of their followers in such a way that they remain healthy, motivated and productive.

Individual approaches would help those who provide care be better able to adjust to the residual stress situation. In this context, systems of education and care have to take an active role in trying to help our physician work force. It should start in medical school and residencytraining programs.

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Mental and Physical Health Of Medical Students.
Fit2work-Therapy and Prevention

URSULA VIKTORIA WISIAK & MELANIE TSCHERNEGG

Abstract In the summary of Mental and Physical Health of Medical Students - Fit2work-Therapy And Prevention the research on sample of 110 medical students at the beginning of the first and second semester of their study, which have completed the questionnaire "Mental Health of Medical Students" is presented. Test battery covered subscales and measures parameters like emotional wellbeing, social support and self-organization skills, psychosomatic reactions and critical life events. It was found that students who have well-established self-organization skills and good social support suffer from less psychological and physical problems. A significant difference was found also between male and female students in the first as well as in the second semester in the relation to physical health. Female medical students have submitted more physical complaints than male students.

The research has highlighted the importance of preventive measures at the beginning of the medical education. Therefore, at Medical University of Graz a counseling center, a hotline for crisis, and the helpline Peer2peer are available. Clinic for Medical Psychology and Psychotherapy of Medical University Graz offers also relaxation trainings and courses to improve learning strategies, on demand.

Keywords: • medical students • emotional well-being • social support • self-organization skills • preventive measures •

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Summary

Recent literature has shown that compared to other professions, medical students as well as doctors have jobs with very high risk for burnout and resignation. Out of a big data pool we present data of 110 students, having completed the questionnaire "Mental Health of Medical Students" at the beginning of the first and second semester. The questionnaire consists of different subscales and measurement parameters like emotional wellbeing, social support and self-organization skills, psychosomatic reactions and critical life events.

The results show that students having well-established self-organization skills and good social support suffer from psychological and physical problems less. Additionally, there is a significant difference between male and female students in the first as well as in the second semester in relation to physical health, whereas female students show more physical complaints than male students.

Therefore, it is really important to announce, extend and create preventive measures at the beginning of the medical education. Students should have the opportunity to get special information on how to handle new situations concerning their career aspirations.

Students should get the chance to attend workshops to improve time management skills and their knowledge about healthy food and daily exercises. At our university, we have a counseling center, a hotline for crisis, and the helpline Peer2peer. In addition to that, our department offers relaxation trainings and courses to improve learning strategies, on demand.

In September 2012 fit2work has been initiated by the Austrian Federal Government. It is based on the Federal Act on Providing Information, Advisory and Support Services in the Areas of Health and Work (Arbeit-und-Gesundheit-Gesetz, AGG). The fit2work services are provided by regional implementing partners and activities are coordinated by the Federal Social Office (Sozialministeriumservice).

All psychological aspects are managed by clinical psychologists and psychotherapists being members of the Association of Austrian Psychologists (BÖP). Everybody who is employed or self-employed in Austria or registered as unemployed can take part. All services that fit2work provides are free, clients take part voluntarily, the information is kept confidential and the service is all over Austria. Fit2work provides free advisory services if the job is at risk because of health problems or finding work. The case manager provides individual support. Sometimes the client can attend a special training program that helps to find a new type of job. They help them also to return to work after a long period of sickness or burnout.

Regarding a holistic model of health, as burnout or other mental health problems are, for responses to stressful and critical life events there is psychological counseling and

psychotherapy. There is an individual therapy for about 30 sessions and group therapy, lasting one year. There are two types of group programs, one deals with social and emotional problems, according to behavioural therapy and the other is more open to individual problems, according to dynamic group therapy.

Some data: Till October 31, 2016 basic information was given to 62031 persons and 780 to businesses, 41,126 got a first consultation and 17,643 a case management. 57% were women and 60% of all had no job. About 4,300 clients were assured psycho-educational programs. The evaluation data shows a significant reduction in clinical scales. A big success is that 43 % of unemployed persons could get a full-time job.

Burnout Among Medical Students from Maribor

ŠPELA PLANINC & VID ŽUNKO

Abstract:

Purpose: Burnout is prevalent in doctors, but it can already begin during medical school. Our study aimed to investigate the occurrence of burnout syndrome among medical students at University of Maribor, Slovenia.

Methods: Medical students (N = 212) at the University of Maribor completed Maslach Burnout Inventory-Student Survey (MBI-SS, Schaufeli WB et al., 2002) and short form of List with items about someone′s competition, physical and sleep habits and perceived social support.
Results: Only 3.3% of all students demonstrate burnout completely, but therefore 27% of participants show high level of emotional exhaustion (EX), 26.4% of them are rather unsatisfied with own academic effectiveness (EF). In small group (4%) of those with highly level of cynicism (CY), the significant differences between gender, age and year of study were found. The significant link between the occurrence of burnout signs and the individual′s competitiveness, physical habits, sleep quality and level of perceived social support was also confirmed.

Conclusion: The medical students′ gender, age, and a year of study appear to be associated with the signs of burnout. Our data highlighted also the importance of medical students' healthy lifestyle and a balance between efforts and ability to release.

Keywords: • medical students • emotional well-being • social support • self-organization skills • preventive measures •

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1   Introduction

Burnout is a psychological syndrome that involves a prolonged response to chronic interpersonal stressors (1). It is seen in demanding jobs and in people who care for others - social workers, teachers, and healthcare professionals (2). However, the term may be also applied to individuals who engage in activities that are psychologically similar to work, such as students (3).

It is crucial to know the differences between burnout from stress. Burnout may be the result of unrelenting stress, but it is not the same as too much stress. It develops because of one's workload, lack of control over establishing following day-to-day priorities, insufficient reward and accompanying feelings of continually having to do more for less (4). The main differences between stress and burnout may be seen in Table 1.

Table 1: Differences between stress and burnout (4)

STRESS	BURNOUT
Stress is characterized by over-engagement.	Burnout is a kind of defence characterized by disengagement.
In stress emotions become over-reactive.	In burnout emotions become blunted.
In stress the physical damage is primary.	In burnout the emotion damage is primary.
The exhaustion of stress affects physical energy.	The exhaustion of burnout affects motivation and drive.
Stress produces disintegration.	Burnout produces demoralization.
Stress can be best understood as a loss of physical energy.	Burnout can be best understood as a loss of ideals and hope.
Stress produces a sense of urgency and hyperactivity.	Burnout produces a sense of helplessness and hopelessness.
Stress produces panic, phobic, and anxiety-type disorders.	Burnout produces paranoia, depersonalization and detachment.
Stress may kill you prematurely, and you will not have enough time to finish what you started.	Burnout may never kill you but your long life may not seem worth living.

According to Maslach, the three key dimension of this response are overwhelming exhaustion, feelings of cynicism and detachment from the job and a sense of ineffectiveness and lack of accomplishment (1).

Burnout and medical students

Burnout is a common syndrome seen in healthcare workers, particularly physicians who are exposed to a high level of stress at work. Multiple studies show that at least one third of physicians revealed features of burnout (5-7).

The prevalence of student burnout does not emerge consistently across different studies. Early reports put it between 10 and 45%; however, more recent studies suggest that the prevalence ranges between 31 and 56% (5,8,9). Studies have also found burnout to be more frequent among medical students than their peers in other university courses (10).

The difference between reported prevalence could be explained with progressive development of the syndrome. The prevalence in preclinical students is reported to be the lowest - Bourdeau et al. found severe burnout syndrome in 15% of first year medical students and 44% in third year students (11). The gradual development can be also observed in the following statistic: the prevalence in preclinical students is estimated to be between 2 and 53%, in clinical students between 10 and 45%, in medical residents between 27 and 75% and practicing physicians between 25 and 60% (6).

Burnout Syndrome among students has the same three dimensions as among employees: *emotional exhaustion* (due to educational demands), *cynicism* (indifference/apathetic attitude toward academic activities), and *low professional efficacy* (perception of incompetence as a student) (3).

Medical student burnout and individual factors

Learning and work environment is thought to be the primary contributor to burnout, however, individual characteristics and experiences have also important role in perceiving workload and level of support (12).

Among demographic factors associated with burnout in medical students the gender plays an important role (6). Some studies suggest weak correlation between gender and one of the burnout' dimension. Higher emotional exhaustion is more often in female medical students, whereas male students show more often cynicism (12).

Negative personal life events (personal illness, illness in a family, going through a divorce, financial situation etc.) can also increase the risk of burnout (9,12). Social support and coping mechanism are likely to have some degree of moderation of the stress that affects vulnerability to burnout. Medical students who report higher levels of social support are less likely to have burnout symptoms (12).

Interesting is also correlation between perfectionism and academic burnout. Numerous investigations have revealed that perfectionism tendencies and academic burnout are correlated. Higher academic self-efficacy (overall judgment, including self-ability to manipulate and effectuate required series of academically related tasks) is also observed to be related with lower academic burnout (13).

Student's empathy and optimism have also influence on burnout's dimensions. Empathy is positively correlated with personal accomplishment, but inversely associated with an

indicator of burnout – cynicism. Higher optimism scores are associated with higher scores of personal accomplishment and with lower scores of emotional exhaustion (14).

Medical student burnout and workplace/learning environment

The finding that 1st year medical students have a similar or even better mental health profile than age-matched college graduates pursuing other careers and that medical students' mental health deteriorates once in medical school to become worse than that of age-matched college graduates, suggests that the origins of burnout are rooted in the learning and work environment. This resonates with studies demonstrating that workplace conditions, more than individual characteristics, are the major determinants of doctors' well-being and drivers of burnout (12).

Study conducted in the USA by Dyrbye at al. shows that dissatisfaction with the overall learning environment and amount of support from faculty staff is most strongly related to burnout among year 1 and year 2 students, whereas dissatisfaction with the overall learning environment, poor clerkship organisation, working on hospital ward rotation and working with cynical residents is most strongly related to burnout among year 3 and year 4 students (15).

Workload and learning environment also have an influence on student's burnout – in a study of Swedish medical students by Dahlin and Runeson, students who claims they have too much work have more signs of burnout (9).

Interesting is also the relation between curricular factors and burnout. Students in a grading system with three or more hierarchies (e.g. A–F letter grade; honours/high pass/pass/marginal pass/fail; honours/pass/fail) rather than a strict pass or fail curriculum had 1.97 times increased odds of experiencing burnout. Other studies have demonstrated that pass or fail grading schemes during the first 2 years of medical school promote group cohesion, suggesting that grading scheme may influence the degree to which the learning environment is supportive, help ease the initial adjustment to medical school and facilitate development of social support networks that are important to resilience (12).

Medical students are also susceptible to burnout because they are exposed to cultural norms of detachment that promote emotional exhaustion and depersonalization. Emotional detachment is reinforced by cultural norms in which medical students, like physicians, are expected to not show emotion, even while they witness a steady stream of human distress. Burnout (and especially depersonalization) is likely to impair students' ability to reflect and learn from past mistakes, care about their patients, and develop a mature, integrated professional identity (9).

Important role in developing signs of burnout has also medical student abuse – this includes verbal, institutional (including excessive workload) and physical abuse as well sexual harassment and racial discrimination. Recurrent mistreatment (in student self-

report options »several times« and »numerous times«) was associated with high burnout (9,12).

Medical student burnout and influence on career

In a study completed by 1428 fourth-year medical students attending in the USA just prior to graduation, the overall prevalence of burnout was 49%. These findings suggest that the burden of burnout symptoms continues during the transitional period from medical school into residency (12).

The experience of burnout may also have an impact on trainees' views of medicine as a career. A cross-sectional study found that students with high emotional exhaustion were more likely to choose a specialty with a more controllable lifestyle whereas those with low personal accomplishment were more likely to choose a higher-income specialty. Once in residency, burnout is associated with lower career satisfaction, increased likelihood of seriously considering changing specialty and abandoning medicine altogether (12).

Medical student burnout and influence on professional and personal life

Data suggest that burnout has potentially serious professional as well as personal consequences. It may erode medical students' professional development and diminish number of professional qualities (e.g. honesty, integrity, altruism and self-regulation). Medical students with burnout are less likely to identify how to appropriately manage conflicts of interest, report impaired colleagues and endorse appropriate prescribing practices (12). Studies also suggest that burnout may influence quality of patient care, lower students' empathy, increase the risk for medical errors and lead to serious thoughts of dropping out of medical school (6,9,16). Burnout can have adverse personal consequences, including contributions to broken relationships, problematic alcohol use, and mental health problems (16). Medical student suffering from burnout are more likely to face mental health problems, especially anxiety, sleep disorders, depression and suicidal ideation (8-10,12).

Pagnin et al. have found connection between burnout and sleep disorders. They may influence each other, triggering a mutual negative feedback. Burnout dimensions may promote sleep disorders such as insomnia and daytime sleepiness, which in turn worsen exhaustion and academic performance (17). Another study shows that there is as positive and significant relationship between sleep quality and burnout ($p < 0.05$) (18).

Medical students with burnout are two or three times more likely to have suicidal ideation than students who are not burned out, a risk which reverses when burnout subsides (8,9,12).

Several studies share the finding that burnout is related to smoking, increased risk of alcohol abuse or dependence and unhealthy lifestyle (unhealthy eating, lack of exercise) (10,12).

Medical student burnout and its prevention

Despite the rigours of training, not all medical students experience burnout. What is even more important, burnout in medical students may be reversible and up to 26% of them can be recovered within the next 1-2 years without any specific programmatic intervention (6,12).

Although many factors contributing to burnout are beyond individual control, personal choices have some influence on how stressors impact well-being. Personal choices that ensure adequate sleep during time off, building relationships and social support, maintaining personal health with engaging regularly in recreation, hobbies or exercise reduce the risk of burnout (12).

In taking ownership of their own mental well-being, it is important that students are attentive to integrating their personal and professional lives, with appropriate allocation of time for independent study, personal pursuits and rest (12).

Additional strategies include seeking support and frank discussions with supervising faculty staff, especially when student suspects he or she may have had a role in a medical error. Such conversations can help prevent future errors and reduce inappropriate self-blame and distress. It is also advisable for students to seek additional instruction for specific work-related tasks they find particularly stressful (e.g. relaying bad news, procedural tasks) (12).

Important role in prevention of burnout in medical student has also organisation (i.e. faculty/hospital) itself. Curricula focused on awareness of burnout, self-care (reduction of stress and fatigue), maintaining health and personal interests, work-life balance, dealing with suffering and medical error as well as restructuring of medical student duties, regular performance evaluations and structured mentoring programmes have all been reported to be helpful in reducing medical student burnout (8,9,12).

An example of an evidence-based organisational change to reduce burnout and improve well-being is adopting a pass or fail grading scheme during the first 2 years of medical school. Furthermore, studies have found that switching to a pass or fail approach in year 1 and year 2 does not decrease medical knowledge scores on standardised tests or clerkship performance (8,12).

It is also necessary that the faculty/hospital staff is informed about the extent of the problem, common drivers of burnout, how to identify and refer trainees with burnout. They should have teaching skills needed to establish an optimal learning climate, provide effective feedback and foster reciprocal relationships. Primary prevention on organisational level should be also focused on eliminating students' mistreatment (12). Secondary prevention should include strategies to promote early identification of burnout and prevention of serious personal or professional consequences. Students who screen

positive for a substantial burden of distress should be directed or referred to their primary care doctor or mental health provider for further assessment (12).

The aim of this study was to evaluate the prevalence of burnout syndrome among medical students at the University of Maribor, Slovenia.

2   Materials and methods

The aim of the study was to determine the level of burnout among medical student at the University of Maribor.

The occurrence and level of burnout among medical students is in correlation with: gender of students (H1), age of students (H2); year of study (H3); their competitiveness (H4); physical habits (H5); sleep quality (H6); feeling of being socially supported (H7).

A study has been performed at the University of Maribor, Slovenia, in the academic year 2016 - 2017. The sample consisted of 138 females and 74 males aged between 19 to 29 years, with the mean age of 22 years. We included 79 students of 2nd year, 67 students of 5th year, and 66 students of 6th study year. Participation was voluntary and the answers to questionnaires anonymous.

We used the modified version of the Maslach Burnout Inventory - General Survey (MBI-GS, Schaufeli et al., 1996), slightly adapted for its use with university students, under the name of Maslach Burnout Inventory-Student Survey (MBI-SS, Schaufeli WB et al., 2002). The MBI-SS consists of 15 items that constitute three subscales: exhaustion (EX; 5 items), cynicism (CY; 4 items), and efficacy (EF; 6 items). All items are scored on a 7-point frequency rating scale ranging from 0 (never) to 6 (every day).

Emotional exhaustion is a dimension of the burnout which is understood as the occurrence of fatigue, apathy, a feeling of indifference and emptiness. Authors emphasize that it is not related to the stressors at work with people, but is linked to the nature and requirements of the study.

A dimension of Cynicism is also not related to the stressful work with people, but is associated with the requirements of the study. It includes the student's doubts about the relevant choice of study and planning of career. The dimension represents the interpersonal component of burnout phenomenon, known also as Depersonalization (MBI, Maslach, Jackson, Leiter, 1996).

The dimension of Efficacy refers to the student's feeling of competence and productivity and to his/her sense of self-efficacy. It is a self-evaluation component of burnout and depends on students′ satisfaction with their academic performance. To Maslach (1998) it is a component of burnout associated with self-esteem and self-confidence. High scores of efficacy are not related to burnout and are not positively correlated with other two dimensions - exhaustion and depersonalisation. This means that the higher is feeling of efficiency expressed, the lower is the expected value of emotional exhaustion and

cynicism, and vice versa, lower level of Efficacy is associated with higher level of Emotional Exhaustion and Cynicism.

We have also used short form of List with items about someoneʹs competition, physical and sleep habits and perceived social support. Self-assessment list, which has been designed for our study, consists of 9 items. For each item it is possible to choose between three options: 1 (not true), 2 (partly true), 3 (absolutely true).

The collected data were statistically analysed with SPSS system 21. The results are presented by descriptive statistics. Basic statistical measures are used in order to define a sample and its basic trends in occurrence of burnout (frequency, arithmetic mean, standard deviation, Pearsonʹs correlation). Hypotheses were checked by Independent Samples T-test or One-way ANOVA.

3   Results

In Table 2 – 5 we presented a basic data about our sample. Table 2 shows the sample of medical students according to their gender and average age. There were 74 males and 138 females included in our study with the average age of 22 year (M ± SD = 22.54 ± 1.95).

Table 2: Sample of medical students by GENDER

GENDER	f	%	Mean age
Male	74	34.9	22.72 ± 1.94
Female	138	65.1	22.44 ± 1.96
Total	212	100	22.54 ± 1.95

N = 212; f - frequency; % - percent

Table 3 on the next page give us insight into the structure of sample's age and year of studies.

Table 3: Sample of medical students BY AGE and STUDY YEAR

AGE (years)	f	%	Study year	f	%
19	3	1.4	2nd	79	37.3
20	54	25.5			
21	18	8.5			
22	9	4.2	5th	67	31.6
23	47	22.2			
24	52	24.5			
25	22	10.4	6th	66	31.1
26	5	2.4			
27	1	0.5			
29	1	0.5		212	100
SKUPAJ	212	100			

N = 212; f - frequency; % - percent

Table 4 shows the mean values of burnout dimensions as they have been identified with the used testing instrument (MBI-SS).

Table 4: Burnout dimensions

BURNOUT DIMENSIONS (MBI–SS, 2002)	M	SD
Emotional exhaustion	11.83	5.02
Cynicism	3.95	4.53
Efficacy	13.099	5.34
BURNOUT	28.87	10.68

N = 212; M - arithmetic mean; SD - standard deviation

Table 5 on the next page shows a more detailed view into the three dimensions of burnout. We have divided all three dimensions of burnout (EX, CY and EF) into three stages, namely in low, moderate and high level.

Table 5: Sample of medical students and level of burnout

BURNOUT DIMENSIONS (MBI–SS, 2002)	LEVEL OF BURNOUT										
	Low	f	%	Moderate	f	%	High	f	%	Total	
										f	%
Emotional exhaustion	0 - 6	25	12	7 - 14	130	61	15 - 30	57	27	212	100
Cynicism	0 - 6	168	79	7 - 14	35	17	15 - 21	9	4	212	100
Efficacy	22 - 29	12	5.6	10 - 21	144	68	2 - 9	56	26.4	212	100

N = 212; f - frequency; % - percent

In our sample, only one (0.5%) student fit the tri-dimensional diagnosis criteria for Burnout Syndrome (high level of EE, high level of CY and low level of EF). Using bi-dimensional criteria for Burnout Syndrome, which are less strict (with only high level of EE and CY), our prevalence would have been greater, but still only seven (3.3%) students fit the criteria.

There were no significant differences between gender and burnout prevalence (1.4% for female, 1.8% for male; Independent Samples Mann-Whitney U Test: sig > 0.857), as well as between year of study and burnout prevalence (0.9% for 2nd year, 0.5% for 5th year, 1.9% for 6th year; Kruskal Wallis Test: sig > 0.980).

We have assumed that the prevalence and level of burnout in medical students is in correlation with the gender of students (hypothesis H1). In Table 6 are presented mean values with standard deviation and the statistical significance of differences tested with T-test. It also shows the lowest and the highest values of all three dimensions (not related to the students′ gender). Independent Samples T-test has shown no statistically significant correlation between female and male gender in Emotional exhaustion (p = 0.97), as well as in Efficacy (p = 0.25). However, there is a statistically significant correlation between female and male students in Cynicism (p < 0.05). Hypothesis H1 can be partly confirmed. Male students show more signs of cynicism than female students, but there are no statistically significant differences in other two dimensions of burnout.

Table 6: Burnout dimensions and GENDER

BURNOUT DIMENSIONS (MBI–SS, 2002)	GENDER					TEST VALUES	
	Male		Female		T-test	Min	Max
	M	SD	M	SD			
Emotional exhaustion	11.85	4.82	11.83	5.14	p = 0.97	0	29
Cynicism	4.80	4.96	3.50	4.22	p < 0.05	0	21
Efficacy	12.52	5.62	13.40	5.17	p = 0.25	2	29

N = 212; M - arithmetic mean; SD - standard deviation; p - level of significance

According to hypothesis H2 we have assumed that the signs of burnout are in correlation with age of medical students. As it is shown in Table 7, Pearson correlation coefficient reveals statistically significant positive correlation between age of the students and Cynicism (r = 0.172, p = 0.05). This means that with the increasing age of students we can expect more signs of expressed forms of cynicism. Other two dimensions of burnout are not statistically significantly connected to the age of included students. We divided our sample in two age groups – in 1st we included students between age 19 and 23 and in 2nd group were students between age 24 and 29. T-test has shown no statistically significant difference between those two groups in Emotional exhaustion (p = 0.525), as well as in Efficacy (p = 0.832). However, in dimension Cynicism we have found statistically significant difference between both group of students (p = 0.031). Hypothesis H2 is so partly confirmed. Overall, age of students has no influence on their Emotional exhaustion and Efficacy, but it impacts the dimension of Cynicism. Older students have expressed more signs of cynicism. It can be concluded that with the increasing age more signs of cynicism could be expected.

Table 7: Burnout dimensions and AGE

BURNOUT DIMENSIONS (MBI –SS, 2002)	AGE	AGE GROUP				
	r	1.		2.		T-test
		M	SD	M	SD	
Emotional exhaustion	- 0.089	12.01	4.77	11.56	5.41	p = 0.525
Cynicism	0.172[*]	3.43	4.15	4.80	4.98	p = 0.031
Efficacy	0.036	13.16	5.36	13	5.33	p = 0.832

   N = 212; M - arithmetic mean; SD - standard deviation; r - *Pearson's coefficient of correlation;* p - level of significance;
  [*] Correlation is significant at the 0.05 level (2-tailed);
   1. age group – between 19 and 23 years;
   2. age group - between 24 and 29 years;

Testing hypothesis H3, with which we anticipated that the level of burnout is in relation with the year of study, has shown no statistically significant differences (Table 8). Again, we have noticed the tendency in dimension Cynicism. Therefore - as it is evident from Table 8 - we have created two groups: 2nd year students in "lower stage of study" and 5th and 6th year students together in "higher stage of study". When we tested the difference between both groups with Independent Samples T-test we found statistically significant difference in dimension Cynicism ($p < 0.05$). This means that students in higher stage of study more often show signs of cynicism as students at the beginning of study. The hypothesis H3 has been partly confirmed: the stage of study does not affect the burnout dimensions Emotional exhaustion and Efficacy, but it has an effect on dimension Cynicism. We can summarize that in the group of students with higher stage of study the signs of cynicism are expected.

Table 8: Burnout dimensions and STUDY YEAR

BURNOUT DIMENSIONS (MBI –SS, 2002)	STUDY YEAR							LOWER – HIGHER STAGE OF STUDY				
	2nd		5th		6th		ANOVA	2nd		5th + 6th		t-test
	M	SD	M	SD	M	SD		M	SD	M	SD	
Emotional exhaustion	12.23	5.06	12.34	4.21	10.85	5.62	p = 0.16	12.23	5.06	11.60	4.99	p = 0.38
Cynicism	3.05	4.08	4.36	4.38	4.62	5.04	p = 0.08	3.05	4.08	4.49	4.70	p = 0.05
Efficacy	12.97	4.96	14.12	5.69	12.21	5.31	p = 0.11	12.97	4.96	13.17	5.57	p = 0.79

N = 212; M - arithmetic mean; SD - standard deviation; p - level of significance;

Table 9 presents the connection between the burnout and students′ competitiveness during the study which is expressed by two items (a, b). Pearson′s correlation coefficient shows that item "Everything I start, I want to do better than others" (competition with others) is not statistically significantly associated with burnout signs ($r = -0,123$; $p = 0.075$). In contrast, the item "Everything I start, I want to do as soon as possible" (competition with oneself, in time) shows statistically significant positively correlation with the occurrence of burnout ($r = 0.259$; $p = 0.000$) in our sample. This means that those students, who evaluated themselves as ambitious (they want everything what they undertake to carry

out as soon as possible), are more likely to show signs of burnout. Our study confirmed statistically significant link between the occurrence of burnout signs and the individual competitiveness (with oneself, and in time), but not in the case of competitiveness with others. Hypothesis 4 is in this case partly confirmed.

Table 9: Burnout and COMPETITIVENESS

COMPETITIVENESS	BURNOUT	
	r	p
a) Everything I start, I want to do better than others.	- 0.123	0.075
b) Everything I start, I want to do in the as soon as possible.	0.259*	0.000

N = 212; r - *Pearson's coefficient of correlation;* p - level of significance;
* Correlation is significant at the 0.01 level (2-tailed).

In Table 10 we can see the correlation between medical students' burnout and their physical habits, sleep quality and social support. We have checked the correlation with Pearson correlation coefficient.

Table 10: Burnout - PHYSICAL HABITS, SLEEP QUALITY, SOCIAL SUPPORT

	PHYSICAL HABITS		SLEEP QUALITY		SOCIAL SUPPORT	
	r	p	r	p	r	p
BURNOUT	- 0.201*	0.003	0.244*	0.000	- 0.202*	0.003

N = 212; r - *Pearson correlation coefficient*
* Correlation is significant at the 0.01 level (2-tailed).

We have found statistically significant negative correlation between students' physical habits and burnout, which means that our students with higher level of burnout shows signs of unhealthy physical habits ("Most of the day I sit and I don't take part in sports activities"). In other words, in students with less physical activity we can more likely expect occurrence of burnout (r = -0.201, p = 0.003). Hypothesis H5 - there is correlation between burnout and physical habits - is so confirmed.

We have also checked if burnout signs are connected with a quality of sleeping (as a cause or a consequence of burnout). Statistically significant positive correlation between occurrence of burnout and sleep quality ("Due to full head of different thoughts I have troubles falling asleep or I often wake up during the night") was found (r = 0.244, p = 0.000). Students with more signs of burnout show a reduced quality of sleeping. The hypothesis H6 is confirmed. But it remains unclear whether sleep disturbances are a cause or an effect of burnout.

Table 10 shows the link between signs of burnout and perceived social support ("I think there is no one to whom I can trust my problems."; "In my family there is no one I can ask for advice about my problems."). Pearson correlation coefficient indicated statistically significant negative correlation between signs of burnout and level of perceived social support (r = -0.202, p = 0.003). In other words, students, who express lower level of perceived social support, show more signs of burnout. Students with higher level of perceived social support have less signs of burnout. We have confirmed our last hypothesis H7 – there is a correlation between occurrence of burnout and perceived social support.

5   Discussion

The results of this study show that the prevalence of burnout in our medical student sample is low ($< 5\%$); however, a substantial number (27%) of participants reported high levels of emotional exhaustion – feelings of overloading by academic demands – and 26.4% of them show shortage of satisfaction associated with their own academic performance, low self-assessment of their own competence and productivity. High level of cynicism manifested in the students′ doubts show 4% of included students. Our results are comparable with the findings of similar study of Galan et al. in 2011 (6). They found 17.8% students with the high level of emotional exhaustion, 10% students with the high level of cynicism, and 17.8% with the low level of self-efficacy. However, most of the studies reported higher percent on all dimensions of burnout (54.8% high level of EE, 34% high level of CY and 46.6% low level of PE - Cecil et al, 2014 (2); 44.6 % high level of EE, 37.9% high level of CY and 31.3% low level of EF - Asencio-López et al, 2016 (11); 62.6% high level of EE, 47.4% high level of CY and 17.3% low level of EF - Costa et al., 2012 (3)). Such comparisons suggest that in general, the registered signs of burnout in our sample of medical students are less presented than they were found in other surveys. Having such data we may conclude whether our students are really less frequently the victims of the burning-out process or their answers are less authentic because they had been chosen more socially desirable answers.

According to our results, burnout syndrome is manifested differently with regard to gender of included students. Significant differences between male and female medical students were found in the dimension of Cynicism. Male students show higher level of doubts in their career choices than female students. Differences between them in the emotional exhaustion and in the sense of personal efficacy were not found. Similar results were found in the study by Koehl-Hackert et al. in Germany, 2012 (19) which involved students of last academic year using general form of MBI. Assuming that an individual's overloading with the academic requirements triggered the burning out process, leads to asking why there are differences between genders. At the same extent of academic requirements the female medical students seem to be more attuned to them, they doubt in their decision about the kind of study less, anticipated the demands of medical profession, and give an impression that they are more reassured with them.

We have also found that the signs of cynicism are related to the duration of the study. Students at higher stage of medical study more frequently show signs of cynicism than those at lower stage of study. Our findings are comparable to the results of other studies. Cecil et al., 2014 (2) and Chang et al., 2012 (20) found that depersonalization (CY dimension in general MBI) and sense of self-efficacy (EF dimension in general MBI) are associated with the duration of study. The research performed by Győrffy et al., 2016 (10) show in some way different results. They show that duration of training has no influence on emotional exhaustion and also does not lead to a reduced student′s sense of self-efficacy, but is significantly related to the signs of cynicism. As in our case, they found that medical students at the higher stage of study are more frequently confronted with doubts about the adequacy of their study and career choices. Some authors (6,21) have even found that with the stage of the medical study the values on all three dimensions of MBI measure increased.

According to the other findings we also indicatively tested students′ competitiveness, their physical activity, sleep quality and the level of perceived social support.

We found statistically significant link between the occurrence of burnout signs and the individual competitiveness (with oneself and in the time), but not in the case of competitiveness with others. This could in some way correspond to the research data of Yu et al., 2016 (13). They found that medical students′ socially-prescribed perfectionism positively correlated with academic burnout (r = 0.428, p < 0.01). In this context, they emphasize that a typical representative example of a person, who is expected to be perfect not only by himself or herself, but also by parents, teachers and the community, is a medical student. They mean that these individuals socially experience strong achievement motivation for perfectionism. They receive frequent praises and messages from the society that perfectionism is good. According to previous studies, such perfectionism tendencies can predict positive or negative adaptation to school life according to whether the tendency is expressed positively or negatively (13).

Physical activity is playing an important role in developing burnout. Our results show negative link between students' physical activity and burnout. Occurrence of burnout is more likely to be expected in students with less physical activity. This finding is also reported by Cecil et al., 2014 (2) – low levels of physical activity predicted higher emotional exhaustion and lower sense of academic self-efficacy. Higher prevalence of burnout in medical students with less physical activity was also observed in a study conducted by Costa et al., 2012 (3). The results of our study suggest that the active promotion of physical activity within medical student populations may help to protect students from the effects of burnout.

We have also found statistically significant positive correlation between occurrence of burnout and sleep quality. Similar results about relationship between sleep quality and burnout reported Arbabisarjou et al. in Iran, 2016 (18). Based on these findings, it can be concluded that more sleep quality medical students have, the better they will manage to make progress in terms of educational opportunities and the less will they suffer from

academic burnout (18). However, it still remains unclear whether sleep disturbances are a cause or an effect of burnout and further studies should be made.

In our study it was also observed that the students with higher level of perceived social support have less signs of burnout. Our findings confirm the assumption that social support plays a critical role in medical student resiliency. High levels of support from family, faculty members, peers and positive perception of the learning climate (i.e. as collaborative, that student education is a priority for faculty members and of the overall learning environment) are protective against burnout (22).

6   Conclusion

Although our study was a pilot based survey, it gave us a quiete good insight into the phenomenon of burnout among medical students at the Medical Faculty of the University of Maribor. The detected extent of burnout is not high. Like it is practice in others studies of this phenomenon, we also used the self-assessment measurements. Therefore, we cannot absolutely exclude a presumption that to a certain extent the students' replies could have been customized to the human′s general tendency of presenting oneself in a socially the most preferred appearance - which may have led to the decrease of the real state of extent of burnout among included medical students.

Our study provides the starting points to further searching for replies, for example what is behind the differences between female and male medical students, how they could be generated by empathy level and motivational factors for professional decision and finally which are the best pathways of prevention from burning out process during a medical study.

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Stress and Resources in Female and Male Physicians

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Abstract:

Purpose: The number of women in medicine is increasing constantly. However, women are still lacking in higher ranks. Several issues are discussed regarding gender inequality in medicine (e.g. work-life balance, career priorities of women and men, and discrimination). Methods: This qualitative study focuses on gender aspects in stressors and resources in physicians, thereby taking work-life balance, discrimination and resources into account. Data were transcribed verbatim and analysed using the qualitative content analysis by Mayring.

Twenty-one physicians (10 women, 11 men) participated in interviews. Women had a mean age of 45.7, men of 48.6 years.

Results: It has been shown that physicians focused mostly on discrimination and obstacles to work-life balance. Additionally, gender was strongly interwoven with these aspects, as participants of both genders stated that women were disadvantaged, either by having children and consequently restrictions on career advancement, or by discrimination due to gender inequality (a loss of information, restricted access to resources, a lesser ability to pursue career goals).

Conclusion: Support should be provided by the organisation in the form of structures for facilitating work-life balance, transparency and possibilities for planning career goals as well as by colleagues and other professionals in the hospital.

Keywords: • gender differences • support • self-care • discrimination • work-life balance • physicians • hospital •

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1 Introduction

Differences between female and male physicians have been studied especially with regard to discrimination and work-life balance. In this context, women were found to still be lacking in higher ranks (1, 2), to face greater challenges in combining work and family life (3, 4) and to have less access to resources (5). Additionally, women more often choose to work part-time (6, 7), which may in turn negatively impact their career in academic medicine in terms of scientific output. However, once women acquire top leading positions, their leadership qualities are no longer doubted (8). Nevertheless, leadership positions held by women are not necessarily those with higher status, but rather the opposite, in addition to the question how such positions contribute to career advancement (9).

Aspects regarding work-life balance and success in one's career progress relate to women being affected and disadvantaged to a greater extent than their male counterparts. In this sense, especially childcare and starting a family with children more often negatively affects women as it is still assumed that childcare is a woman's task (4). It is also discussed whether women set priorities differently than do men, thereby focusing more on e.g. their partner's career than on their own career progression (10). Also, some aspects of the medical profession, e.g. high work-load, constant presence on site, weekend and nightshifts, being on-call (4, 11), are regarded as having a different impact on women, especially when it comes to having a family with children. In this context, women's careers were found to be somewhat M-shaped or undulating, rather than linear. A linear increase in productivity is still assumed to be normative, even though it represents mostly male career progression (1, 12). Such a prerequisite of linearity restricts women with undulating career progression in their career advancement. Additionally, achieving higher ranks and full professorship is less likely to happen for women (13). Moreover, acquiring certain positions and ranks is associated with holding power. This is also demonstrated in interaction with others; mistreating and discriminatory behaviour is prevalent in medicine and passed from one generation of physicians to the next (14). More than half of trainees experienced at least one form of harassment or discrimination during their education and training. Of these, verbal abuse was most common (15). Rude, dismissive and aggressive communication affects especially those with lower status and those lower in hierarchy (16), in this case junior physicians but also women as they are less numerous in higher ranks. Discrimination and gender bias can also be described in terms of different treatment of women and men when it comes to promotion and tenure, next to the already mentioned issues affecting women differently than men (17). In this sense, a mere numerical increase of women in medicine was and is not enough to promote gender equality in this profession (18, 19).

Affirmative actions for the promotion of women in medicine have been widely established in university settings. Such affirmative actions for women aim to increase the number of women at all hierarchical levels, thus also in higher ranks, by e.g. using quotas, supporting work-family balance by e.g. offering childcare facilities with opening hours

that reflect the working hours of (hospital) physicians (e.g. early opening hours), or offering mentoring programmes for women.

In this context the predicted physicians' shortage sheds a new light on the aforementioned issues and underlines the necessity to find solutions for both women and men to overcome the imminent health care shortage. Hindrances in career progression due to high work-load, high number of working hours and relatively low income, consequently hospitals becoming less attractive as work places, are not issues affecting only women, but are recent topics in the media and in on-going socio-political discussions with regard to the aforementioned shortage of physicians (20, 21). However, hindrances in career progression represent only one side of the coin. Such aspects have been and are still studied to detect deleterious effects as well as the best possible solutions for these issues. Thus, the other side of the coin focuses on resources in terms of time to regenerate, health-promoting aspects and promotion of resilience. Research on health-promoting aspects, e.g. resilience, has not caught up with research on negative effects on academic careers. In this paper, resilience is understood as a social process that does not focus on resilience as an individual trait, but rather understands resilience as a dynamic interplay between person and social environment (22). In this sense, an individual person is not resilient per se. Central aspects of resilience refer to an individual having specific resources (e.g. support from others, access to resources), using specific abilities (e.g. coping strategies, self-care), having a social environment that provides resources and interacting with the social environment. These are central elements in this understanding of resilience. Studies on resilience in physicians not only show ways to promote resilience (23, 24), but also point out individual and organisational factors contributing to resilience (25-28). Interventions and strategies for promoting resilience, increasing work satisfaction and reducing burn-out in physicians relate to mindfulness, reflection, strengthening collaboration between and within medical disciplines, awareness raising regarding depression, anxiety and burn-out as well as to increasing organisational support structures for physicians (29). Some point out that including self-care in the medical curricula will send a powerful message concerning its importance (30). Despite these approaches there is an ongoing struggle to integrate self-care into the medical culture and it is still not state-of-the-art and sometimes even stigmatized (31, 32). A thorough discussion of and critical reflection on the medical culture and also the "hidden" curriculum are essential, as is the change in the medical culture (29).

Taking these issues into account, this paper focuses on female and male physicians' descriptions of discrimination, stressors and resources. The aim was to study gender differences in sources for discrimination and stressors, but also to determine how resources for regenerating from work were experienced and used by women and men. Thus, a qualitative approach was considered to capture specific difficulties and in depth insights into these issues.

2 Material and methods

Physicians were invited to participate in the study on a voluntary basis. Potential candidates for interviews were informed about the purpose of the study and invited to participate. An equal share of women and men was sought. Participants provided written consent for the anonymised data to be analysed and published. Approval by the ethics committee was not required for this study. All interviews were audio-recorded except one where the interviewee did not want to be recorded. Interviews were transcribed verbatim to ensure that no information was lost.

The interviews were conducted as semi-structured interviews. The interview guide was developed on the basis of literature findings on work-life balance and discrimination, especially when viewing gender as an important variable interacting with these constructs. In this sense, interviewees were asked about their career path up to now and what significant experiences were attributed to being female or being male. The second block of questions centred on discrimination, own and witnessed experiences with discrimination. Additionally, questions on work-life balance were asked to obtain a better picture of the balance or imbalance in combining family and work life. The two last sections focused on the definition and understanding of success, also in relation to gender, and on resources and time to regenerate.

3 Analysis

Analysis was conducted using the qualitative content analysis by Mayring (33). The qualitative content analysis is a rule-governed and systematic approach to analysing qualitative data. In this case we used an inductive procedure, thus deriving categories from the data. All data were worked through several times. A first draft of categories was established after analysis of the first five interviews; thereafter, categories were constantly evaluated for applicability and completeness and were extended and adapted where necessary. Finally, categories for the following topics were established: 1) Definitions of success in medicine; 2) Achieving work-life balance; 3) Hindering and promoting aspects in leisure time and regeneration/self-care; 4) Perspectives on discrimination in medicine.

4 Findings

Population

Ten female (mean age 45.7 years) and 11 male physicians (mean age 48.6 years) participated in the interviews. Of the women 50% and of the men 90% lived in a partnership. Women had on average one child, men two children. Of the women 50% worked full-time compared to 100% of the men.

Definitions of success in medicine

Definitions of success did not draw only on measurable output in terms of scientific achievements, publications or grants. Instead, success was also described as focusing on a goal and working towards that goal. This was also connected to having organisational structures in place in order to be able to actually plan and pursue goals, such as sufficient income, contract stability, and access to resources. In this context, it was seen as especially challenging to have children as one cannot pursue an academic career if family needs require consideration, whether emotional or financial. Thus, especially women with a family have to deal with these challenges and are more often prevented from stating "I'll turn my back on this and put my career success first from now on" (male physician).

Planning and pursuit of career goals were described as needing power, strength and impertinence. Thus, it is not only essential to want to achieve certain goals and to have a plan for one's career, but also to pursue this by any means necessary. Being assertive and therefore being a "doer", namely taking action and putting plans into operation, are seen as distinctive characteristics of successful people. Such pursuit also demands that others and others' careers be worried about less and that one looks after one's own interests foremost.

Still, success was not only defined in terms of power, assertiveness and planning, but also as having a happy family, feeling balanced regarding family and work, competence in patient care as well as social competence and being respected professionally. The danger was seen in striving for perfection in all areas of life, thus having a perfect family and being a perfect parent as well as having an outstanding career as a physician and scientist. 'Having it all' was a doubtful goal and attributed mostly to women. Men were mentioned as not having to decide between family and success as they usually have a female partner who takes care of all the duties at home.

> "I think there are hardly any men who have a female partner such as myself by their side, which means they [the men] have to make less of an effort, because everybody knows most women stay at home with their kids; that's the way it is here. And therefore most men I know, who have kids, they take care of their kids a lot less than do their female partners" (female physician).

Achieving work-life balance

Work-life balance was discussed as diverse. It depended on the partner as one partner steps back for the other partner's career if they have children. This stepping back was mostly described as a rational decision, such as that partner's income was lower, or that partner preferred taking care of their children over pursuing a career. Compromises regarding careers appear inevitable, but occur mostly to the disadvantage of female careers. If possible, male physicians with children planned activities with their children, for example for their compensatory time after night shifts or for times when they can

dictate their own hours. Additionally, childcare facilities are not always used as parents would like to spend more time with their children and decide to stay home rather than use such facilities.

> "Because my wife does not work or works only very little, I have to say we don't depend on outside childcare. Our little one is in kindergarten until 1 or 2 pm. We also don't want her [the child] to stay in childcare the whole day" (male physician).

In general, it was stated that it is difficult to balance family and work. Having a higher-ranked position and having children who have outgrown the need for extended care were mentioned as important aspects that made it easier to balance work and life. However, the question of combining a family with children and the medical profession was seen as challenging.

Hindering and promoting aspects in leisure time and regeneration/self-care

Work took up much space in the participants' narrations. It was noticeable that working in academia requires sacrifices, such as working on weekends and nights. Boundaries between work and leisure time were fluid. Different valuation of science as compared to teaching also meant allocating more time to scientific work. However, practicing medicine and doing science also meant having only little time to spend with family and children. Thus, weekend and nightshifts also had the positive effect of compensatory time that can be spent with children. Having a family with children also meant restricting leisure time because it is necessary to carefully plan every day, especially when children are little. Additionally, appreciation for leisure time and need for regeneration changed over time and participants stated that they no longer work on weekends and consciously distance themselves from work and make better use of their leisure time, e.g. by leaving work at a reasonable time and not mulling over work-related things during their leisure time.

They also reported experiencing such changes in work attitude also in younger colleagues, who are hesitant to do overtime. This behaviour prompted them to think about their own work-life balance and the overtime they had been doing unquestioned for years. Additionally, hobbies gained greater importance with increasing age. Relaxing after work, not trying to finish everything in one day, but being satisfied with what was accomplished became more important than working non-stop.

> "Of course I balance my life, in the sense that I can turn off really well when I leave work, I don't have the feeling anymore that I should call another three patients or something like that. Naturally, there are always some tasks that I have to do the next day or over the next few days, but basically I can leave and turn my mind off" (female physician).

When discussing activities participants did to balance life, they named cultural and physical activities. Sports like biking, hiking, skiing or swimming were popular ways to relax in leisure time. Cultural activities related to playing or listening to music, visiting museums and theatres as well as strengthening their social networks by meeting friends to feel calm and balanced.

Perspectives on discrimination in medicine

It was noticeable that discrimination was described with regard to gender, such that the origin of discrimination was seen in negative or prejudiced attitudes towards women, but also paternal leave as having a negative impact on men's careers. Discrimination topics ranged from no experiences/witnessing, experiencing hindrances or difficulties but not discrimination, to the embedding of discrimination in medical culture, mostly in terms of sexist comments or sexual harassment, and underlining the necessity for affirmative action for women. For example, quotas and equal pay were seen as tools for creating gender equality and as instruments for getting women into leading positions. Discrimination at work, e.g. sexual and psychological harassment, was experienced mostly by women and to mostly affect women, be it during their medical education/training or when working as a physician. Harassment was performed by patients, nursing staff, but also by supervisors. Harassment and discrimination referred to demands made by patients to be treated by a male doctor, denial of access to laboratories, comments on how women should dress (i.e. in a mini skirt and high heels), or statements that one does not want to work with women.

> "[…] one female colleague was denied access to the lab because women have no business there […]" (female physician).

Another essential focus was placed on the fact that having a family affects mostly women, who deprioritise their career because of it. To meet the demands of a heavy work load and the need to finish by a specific time in order to comply with the opening hours of childcare facilities, part-time working women were seen to not be in a position to strengthen their social network in informal meetings during coffee breaks. These social networks were perceived as crucial to advancing one's career and being able to cope with everyday challenges at work, which was also described as handling chaos.

> "[…] and women are affected very much […], because in the end men, I've just started to figure this mechanism out, men say "well, I advance in the chaos, I just go to the coffee machine and get informed about this and that, I might have treated fewer patients, but I know stuff and I'll survive." And if I were a woman who says "I have to leave at noon sharp that is why I have to start working right away", she will suffocate in the chaos. She is at a disadvantage, whereas the other one has advanced. Those who stand next to the coffee machine learn how to survive" (male physician).

On the other hand, it was noticed that gender inequality has started to change and that women and men experience similar treatment nowadays. Thus, as a result of societal change, the gap between women and men was perceived as having narrowed. This is also connected to men being called upon to emancipate themselves in terms of paternal leave and to break through patriarchal structures in hospitals. However, these structures were seen as only slowly deteriorating in medicine, which was also attributed to the hierarchical structure and historical male dominance in the profession. Societal change was experienced as being more rapid, whereas change in the medical culture proceeded at a slower pace.

This medical culture was interwoven with invisible structural sources of discrimination. For example, reports on discrimination are heard, but nothing is done to counteract discrimination. Structural discrimination also related to the team in a wider sense: physicians reported about colleagues' unwillingness to cooperate resulting in an imbalance in work. Additionally, they reported that greater value should be put on performance (e.g. treatment of patients), not only output as measured by scientific publications. Additionally, the constant pressure to deliver (measurable) output (e.g. publications, grants) was seen as opposing work-life balance.

5   Discussion

This study concentrated on descriptions of work-life balance, discrimination, stressors and resources made by female and male physicians. Aspects contributing to severe stress were mostly named as difficulties experienced in balancing family and work, but also in individualistic culture (i.e. competition instead of collaboration) and still noticeable gender discrimination at work. These issues affect mostly women, but also women and men alike.

Support for the successful and satisfactory pursuit of a career in medicine is not only needed from the organisation but also from colleagues. In this sense, the organisation can put structures in place to facilitate raising children and working in medicine (e.g. childcare facilities), or tools to promote women at work (e.g. quotas, equal pay, mentoring programmes). Such structures are already in place at this university hospital. Moreover, the possibility to plan certain goals in one's career, especially long-term goals, is connected to job security and workplace stability. Thus, transparency on the part of the organisation is needed with regard to the requirements to be met in order to stay on at the organisation. So far, job security and thus financial security appear to be connected to certain positions that in turn reinforce power structures and mistreatment. In this sense, there is a need to adapt contracts and provide stability. This would decrease dependency on supervisors and consequently decrease power abuse.

Additionally, discrimination and harsh treatment could be fought more efficiently if those affected were assured that a complaint would have no deleterious effects on their career. This affects mostly those in lower ranks (16) as well as women who are still sometimes

considered to have no business in certain areas or medical disciplines. In this sense, not being dependent on the evaluation or the mercy of a supervisor might increase the possibility to break out of the cycle of transgenerational mistreatment.

Support practices concern all professions at a hospital. The increasing number of women in medicine has not much changed the situation of these women. This indicates that additional efforts are needed to promote change. Even though measures tackling these aspects are covered in affirmative action programmes, it is still necessary to work on social change and to promote programmes that also affect the societal level. Thus, girls' days for children to consider a career in medicine, but also female role models (34) for young women who have already started to study or work in medicine are necessary factors in creating such change. Further societal issues, such as not viewing childcare as mostly a woman's job (4) have to be considered as well. So far, compromises appear to be inevitable when it comes to combining a family with children and a career in medicine (10). Women and men stated that one partner had to step down from their career pursuit and cut back on working hours in order to be able to care for children. This is not only a matter of available childcare facilities, but foremost a question of how to raise children (e.g. not farming children out to institutionalized childcare) that collides with the possibility to have a dual career. Thus, role models and mentoring could also include such issues to illustrate various options for family-career combinations.

Another aspect regarding support refers to collaboration between and within medical disciplines, thus a decline in individualistic work approaches, respectful treatment and access to information for all, not only informal access to information for a few in power. For example, barriers to collaboration between disciplines and ranks could be softened by promoting diversity (e.g. ranks, professions, gender) in teams. However, the acceptance of such diversity has to be established during medical education in order to create sustainability. This cannot be done solely with policies and official rules as it appears to be necessary to also target attitude (e.g. towards women, hierarchies, power) in medicine and thus pursue social change within the medical culture (29). Such a willingness to change was also noticeable in this sample of physicians. For example, their definition of success referred not only to 'hard' and measurable output, but also to personal satisfaction with achieved goals, being respected and being (recognised as) competent in patient care. Such aspects can be interpreted as the desire to work in a more harmonious and less competitive culture.

Besides issues that are experienced as stressful and straining, a real balance between working life and leisure time or time to regenerate was only noticeable to a small extent. Participants spoke only hesitantly about things they do only for themselves and out of pure joy. This might also point to deficiency in attitude toward self-care in medicine (31, 32). Activities undertaken with children during compensatory time or when able to dictate one's own work schedule do not replace time used for one's own mental hygiene. So far it can be concluded that resources and efficient use of leisure time to regenerate do not appear to be optimally pronounced. This could also be due to a hesitancy to talk about

such matters, which might reflect stigmatization of self-care (31, 32). Resilience as interplay between individual, social and organisational aspects has a developmental possibility. So far, resources are mostly drawn from the social environment, such as cultural and social activities, and family time to consciously distance oneself from work in leisure time; some individual aspects seem to play a role too, such as feeling respected as a physician and feeling socially competent. Organisational aspects appear to be limited and were mostly mentioned as gaining more freedom when finally being in a higher position. However, these resilience aspects hardly interconnect, which calls for further action in order to enhance resilience at various levels and make interplay between these aspects more visible. Some measures are already in place that could be used as resilience enhancing aspects, e.g. childcare facilities or mentoring programmes. However, there is an inability to view such measures more in the light of resilience and resources. Thus, conscious efforts should aim to increase resilience, for example the awareness for resources already at hand, and encourage but not stigmatize self-care in physicians.

This study was subject to several limitations. First of all, this qualitative study provides only insight into these topics as the number of participants was limited. Even though we obtained in-depth knowledge on this matter, a second step would be to test this knowledge in a larger sample of physicians to determine variations and manifestations of these findings.

Concluding from this study, it is noteworthy that support and resources for physicians need further attention. Additionally, gender aspects have to be considered more thoroughly. Women and men are affected differently by the medical culture, discrimination, work-life balance and access to resources. As shown, women still face greater disadvantage in medicine. Thus, an understanding of the specific culture in a given hospital and the societal norms and values is needed to implement any interventions to further promote resilience aspects and gender aspects in physicians.

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Talking to the Patient – Is There an Impact on the Physicians' Well - Being?

BIRGIT HLADSCHIK-KERMER & SABRINA WIMMER

Abstract In our article we highlighted the importance of effective physician-patient-communication. It is a significant way to obtain relevant and reliable medical information, which is essential for diagnosis as well as for a treatment, rehabilitation, or over a period of dying and death in terminally ill patients. Finally, it affects also the patient′s compliance and adherence to medical regimen.

However, a proper communication in a physician-patient relationship is not beneficial only to the patients; it is helpful also for medical staff. A number of studies showed that consequences of communication failures regarding a patient's status can lead to frustration and burnout in physicians. A similar phenomenon was identified for nurses.

As communication competences enhance the physicians′ well-being and have a significant impact on the quality of life and health outcome of patients, it is important that communication trainings for medical staff and students are integrated in the clinical practical training. Authors presented the communication skills training and method of promoting empathic behavior known as „Wiener Gesprächsführungs-modell" of the Medical University of Vienna.

Keywords: • physician • patient • medical staff • medical students • communication skills •

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1   Introduction

Adequate and effective communication is a core component in medical consultations. The impact of the physician-patient-communication on patient care is already well-documented (1-3). Lehmann et al. for example showed in a panel study that an inarticulate and vague communication style (lack of communicating information concerning illness, treatment, examination, diagnosis, prognosis and side effects) has a significant influence on the quality of life of cancer patients, persistent over years. Besides, the study found direct correlations between the awareness of physicians and empathy and the mental condition of patients, anxiety, depression, anger and confusion (4). Simultaneously it is a common knowledge that clinical professional experience is generally not a factor which indicates better or enhanced communicative competences of physicians (5).

2   What is healthcare professional communication about?

On one side, an important factor in medicine is to obtain relevant and reliable medical information, which is essential for diagnosis and therapy. On the other side, information needs to be communicated in a way that is comprehensible with the aim to obtain mutual understanding. This process starts with building up a positive relationship, history taking, giving a diagnosis, treatment, rehabilitation and ends frequently in a communication about dying and death in terminally ill patients. Meanwhile, there exist helpful structuring concepts which can be utilised during the acquisition and in practice of the required competences (6, 7).

These models require a clearance of the relationship between physician and patient to make an impact. Creating a lasting physician-patient-relationship is an indispensable condition that information is disclosed and can be received.

3   What makes communication effective?

By now there exist many models that show a wide range of the most important skills which are required for an effective communication style. Common in German-speaking areas is the *Calgary Cambridge Guide* (8). In order to make communication effective there is a list of further essential aspects beside the clinical professional competence. Additionally, it requires the ability to create a lasting physician-patient-relationship, to know about the structure of a good conversation and to consider other important determining factors. Taken all together, the most essential aspects are a good medicine, a good relationship, good conversation techniques and beneficial determining factors (9).

In the last few years, a new concept called *patient-orientated communication* got established. Epstein & Street define it as follows (10):

   1) Comprehending and understanding the patients' perspective (fears, opinions, wishes, expectations, need and emotions)

2) Perceiving the patient within his/her socio-cultural and psychosocial structures
3) Striving a compliance regarding the problem of the patient and selecting a treatment that considers the need of the patient;

In other words, it is about bringing the perspective of the physician into accordance with those of the patient. Physicians focus upon the explanation of the illness and its treatment whereas patients are engaged with the meaning of the illness for themselves, the need for information and being understood as well as the wish to participate in the decisional process. Ruberton et. al found a relationship between physicians being humble and its consequences on the physician-patient communication. The authors propose that humility, rather than being paternalistic or authoritarian, is a beneficial and desirable quality in physicians. The patients (n=297) in this study rated the communication with physician who were humble during a medical visit as more effective and reported better health (11). So, it is not only about *what* but more about how physicians communicate with their patients.

4 The impact of communication competencies on the physicians' well-being

Having a poor communication style influences not only patients' well-being but also those of their physicians. Lack of communicative competences promotes frustration or job dissatisfaction in physicians. Atallah, McCalla, Karakash and Minkoff discuss the correlation between enhanced communication and the decrease in burnout. Consequences of communication failures regarding a patient's status can lead to frustration and burnout in physicians, which are easy to prevent by enhanced communication. The numbers of physicians who fight with symptoms of burnout are high and still increasing (12). Accordingly, Block et al. showed that standardized tools for communication decreased burnout rates among nurses (13). Those tools also have been shown to reduce errors and unfavourable events (14). Findings of Shanafelt et al. point out that there is a relationship between surgeons who show symptoms of burnout and, consequently, a greater likelihood of making medical errors (15). According to a study of Emold, Schneider, Meller and Yagil a significant association between communication skills, self-efficacy and burnout has been found. Oncology nurses who showed higher levels of emotional exhaustion and cynicism were associated with reported lower self-efficacy in communication skills when interacting with their patients (16). To recall Lutgen-Sandvik and Sypher other communication aspects like supportive communication, shared decision-making and provision of feedback can also have an impact on burnout (17).

Boyle, Robinson, Heinrich and Dunn examined the process and outcome of effective multidisciplinary team communication among oncology staff and compared the situation with rules of a winning rugby team. The authors highlight that communication is a team game and that optimizing teamwork can benefit quality of life in both patients and health care professionals (18). Concerning that topic, Epinosa et al. declare that physicians also suffer from psychological stress and even some physical symptoms when facing serious disease and breaking bad news. Conversation with colleagues about one's feelings might

help to notice mistaken beliefs or barriers in the relationship between the patient and the physician and consequently with reducing stress (19). Apker, Propp and Ford state that communication competence can be an essential factor in decreasing stress and averting burnout (20). People do not always have direct influence on potential stressors but they can improve their competencies in communication by practice and training (21).

5   What can we do?

There has not yet been a sufficiently empirically established association between communication skills and burnout but in a study in 2009, Girgis et al. showed that oncology nurses' burnout in Australia is highly predicted by required communication skills training (22). Correspondingly, after having carried out a communication skills training program for physicians, Fallowfield and Jenkins stated that lower levels of burnout are connected to communication skills (23). This interrelation has also been discussed in a paper by Parker et al. in 2009 (24). Several other practitioners suggested programs to improve those helpful communication skills (25-27).

Many medical faculties and universities, such as the Medical University of Vienna, define communicative competencies as core competency of medical doctors, which can and has to be taught and learned. First one must state that technical „skills" (e.g. to end a conversation) are easier to learn than emotional components of conversation techniques (28). In the latter case, it is not only about learning „skills" but rather reflecting one′s own attitudes and beliefs which must be encouraged very carefully. Consequently, good communication training should be composed of a development of "skills" and of the reflection of attitudes and beliefs. Communication training for medical students and physicians should generally take at least one day (better several days) and should be offered repeatedly throughout the curriculum (the professional life).

High acceptance do education programs have in which communication trainings are integrated in the clinical practical training and where students have the possibility to apply their recently acquired competencies. These programs must be geared to be learn-oriented with a high amount of practical exercises. Using various methods and explicit tasks and instructions enhances the effects of the training (29). Practicing specific clinical relevant conversation situations in combination with feedback is considered to be the most effective way. Feedback has a lasting effect on changes in attitudes and behaviour (30-32).

Frequently used methods in the trainings:

- *Role plays among students.* This method promotes empathic behaviour by taking over the perspective of the patient.
- *Practicing specific clinical relevant conversation situations in role plays with standardised patients (SP).* The SPs give immediate feedback to the students (and physicians). This method enables the students (and physicians) to be in a

very realistic situation for practicing, both training communication skills and promoting empathic behavior which leads to an increase of emotional depth in the conversation (33).

Appointing standardized patients in communication skills training with challenging clinical situations is already well established for medical students as well as in post gradual training for physicians in many faculties and universities. This training method will be now illustrated based on the „Wiener Gesprächsführungsmodell" of the Medical University of Vienna:

The training takes place in small groups (10 students each). During 6 years of study, the students go through an introductive lecture with practical exercises and three communication trainings in the curriculum (extent: one hour per week).

The educational objectives are controlled by practical clinical exams (OSCE).
In each course unit, one student carries on a conversation with a standardized patient on a specific task and well-defined educational objectives on a predefined topic (these topics involve issues from anamnesis to palliative situations). During the conversation, all the other students in the course are actively integrated and take notes for the subsequent feedback. The feedback criteria are predefined and every student knows his or her task and the aspect he or she should pay attention to. The student who carried on the conversation reflects his performance after the conversation whilst watching the conversation on video tape. On one side this enhances the self-reflection, on the other side it is an empowerment of already effective strategies as well as an identification of communicative deficiencies. Meanwhile, the other students collect the group feedback which contains feedback for specific and concrete behavior. Once the student who carried on the conversation disclosed his self-reflection, it is the turn of the standardized patient to give his or her feedback through the perspective of the patient. Giving the feedback in this specific way turned out to be very effective because the students get an immediate feedback of how their behavior affected the (standardized) patient (34).

Eventually the peers give the group feedback. Frequently, the importance of the group feedback is underestimated by the teachers (35) which demonstrably affect the self-assessment of communicative competences (36). This implies the necessity of the teachers in actively supporting their students in the development of their feedback competence. Feedback is seen as the most behavior modulating method by many authors.

Communication training with standardized patients in combination with feedback also leads to an improvement of communicative competences and enhancement of the perceived self-efficacy in physicians (37). Communication training can only take full effect when the teachers are sufficiently qualified and trained. It is not enough to be a "general" teacher when imparting communicative competences in small groups of students. The deficiency in faculty development is frequently one of the main causes why

communication programs at medical universities are not able to fully achieve their full potential (38).

For that reason, under the direction of the author, the Medical University of Vienna established a qualification program for teachers who want to teach communicative skills to their students. Beside theoretical inputs, the focus lies on practical exercises and sitting in on lectures with experienced teachers.

Take home messages

- **Communicative competences enhance the well-being of physicians**
- **Decreasing burnout through enhanced communication skills training**
- **Good communication in the team protects from burnout**
- **Communicative competences have a significant impact on the quality of life and health outcome of patients**
- **Communication can be taught and learned**
- **Most effective: specific trainings and constructive feedback**
- **It is not only about training communication skills, but also about developing attitudes;**

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Providing Doctors with Trained Administrative Support Staff and Its Effect on Doctor Workload

ERWIN GOLLNER & BARBARA SZABO

Abstract:

Purpose: Documenting patient histories and coding according to the diagnosis-related-groups (DRG)-system are important yet time-consuming tasks for doctors. They account for approximately 30% of doctors' overall working time. The present research aimed to determine what percentage of doctors' working time is taken up by documentation activities and how medical documentation assistants could provide support in this area.

Methods: Within a requirement analysis, a quantitative study was conducted with 182 doctors employed in Austrian hospitals, as well as five expert interviews with administrative and medical directors.

Results: The results show that the most beneficial tasks of documentation assistants would be the optimization of the structure and effectiveness of the documentation process, which would leave doctors with more time to treat their patients. The results show that the highest potential of employing medical documentation assistants lies in optimizing the structure and effectiveness of documentation process while doctors have the possibility to spend more time on treating their patients. From an administrative perspective, other advantages could include detailed DRG coding and increased efficiency.

Conclusion: Highly qualified medical documentation staff is needed to meet current challenges in the Austrian health care system.

Keywords: • medical documentation • medical documentation assistant • DRG coding • DRG coding • ICD coding •

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1 Introduction

Medical administration is a very time-intensive job task for doctors. It consists of documenting the medical history of a patient in electronic and/or handwritten form, writing examination reports, and diagnosis-related group (DRG) coding, which is called Leistungsorientierte Krankenanstaltenfinanzierung (LKF) in Austria (1).

In recent years, new legal requirements and increased use of risk management have led to an increase in the effort required for documentation. This makes it necessary to provide support to doctors for documentation activities. In this context, many doctors agree that a new profession, medical documentation assistants, could relieve doctors of this burden. Another advantage of employing medical documentation assistants is the potential increase in the consistency and quality of documentation that could result from specific training for these tasks (2).

Medical documentation activities are time-consuming. If doctors did not have to perform such tasks themselves, they would have more time for patient care, and specifically for treating patients and communicating with both patients and their families. Furthermore, the high documentation effort can lead to incorrect or careless data entry.

Surveys with doctors at hospitals have shown that doctors spend up to three hours per day dealing with documentation tasks. Harald Mayer, the chairman of the Austrian medical association, has stated that failure to provide doctors with medical documentation support will result in future patients being no longer treated, but rather "fully administered" (2).

Although organizations responsible for Austrian hospitals are aware of this problem, there has been very little effort made to offer personal resources in the form of trained medical documentation assistants. In 2015, strict compliance with new laws on maximum working hours (48 per week) for doctors became an important political topic in Austria. This is yet another reason that it is essential to provide support for doctors on their administrative and organizational tasks.

Currently, intense time pressure leads to errors in coding individual medical services, and some are not coded at all. Non-coding and non-cleared medical services lead to financial losses for hospitals, which could be minimized by employing trained medical documentation staff (2).

In this area, a 2009 study at the University of Applied Sciences in Münster showed that hospitals would be a more attractive working place for doctors if they were relieved of some of their administrative tasks. Taking into account the prognosis about a future shortage of doctors, this is yet another argument for the importance of supporting doctors in their administrative work (3).

The aim of the present study was to determine the amount of effort that doctors working in Austrian hospitals expend on documentation activities. An additional goal was to explore the potential benefits of employing trained medical administrative assistants by including diverse perspectives (i.e. both medical and administrative) in the study. One final objective was to identify the specific tasks medical documentation staff could potentially manage, as well as the specific competencies such staff should possess. Answering these questions will provide a better insight into this new profession's potential to support doctors.

2   Material and methods

From October to November 2014, researchers from the University of Applied Sciences Burgenland conducted a quantitative study. The study's participants were doctors working in hospitals operated by different organizations. The medical or administrative directors of the participating hospitals sent the doctors a link to an online survey, which consisted of questions regarding:

- the time doctors needed to finish specific tasks;
- the need for medical documentation assistants;
- the potential support medical documentation assistants could provide; and
- the qualifications a medical documentation assistant should have.

Based on the results of the quantitative study, qualitative guideline-based interviews were carried out with three medical directors and two administrative directors. These interviews covered the need for medical documentation assistants, as well as the qualifications necessary for this new professional group. The goal of these interviews was to obtain a deeper insight into the potential benefits of medical documentation assistants from a management perspective.

3   Results

The following sections provide an overview of the results of both the online survey and the qualitative interviews.

Results of the online survey

A total of 182 doctors participated in the quantitative study, but 22 of the 182 completed surveys had to be excluded because they were incomplete.

The results showed that 76% of the doctors think there is a high or even very high demand for medical documentation assistants on their wards. Doctors in standard hospitals and hospital centres expressed a greater need for this professional group (83%) than those working in central hospitals (60%) (Figure 1). Only 22% of the doctors said that there is only little need for medical documentation assistants on their wards, and a mere 3% said

there was no need. Overall, the demand for medical documentation assistants seems to be quite high in standard hospitals and hospital centers, as well as in central hospitals.
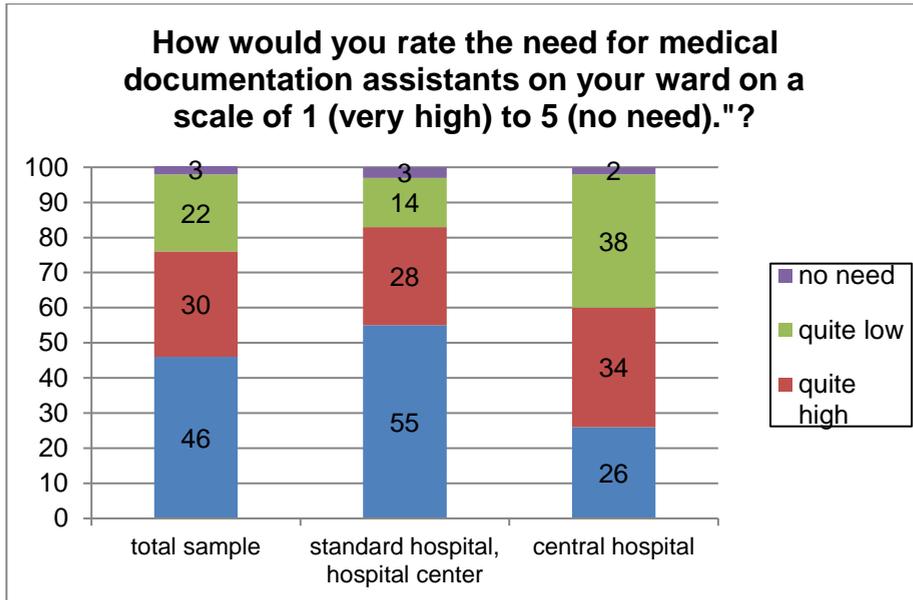
Figure 1: Identified need for medical documentation assistants, n = 160, figure in percent, source: FH Burgenland

Three quarters of the participants said that employing medical documentation assistants could help them with their documentation duties (Figure 2). The data shows clearly that doctors working in standard hospitals or hospital centers rate the potential of this professional group higher than those working in central hospitals.
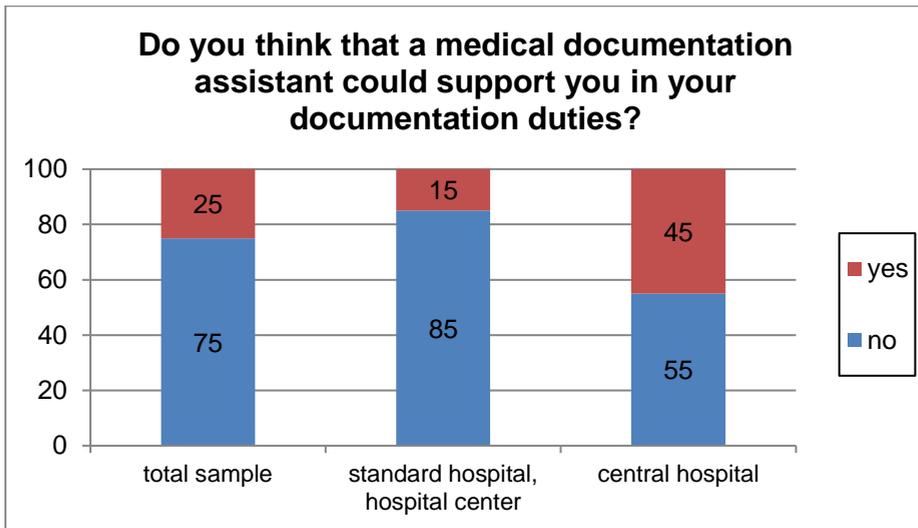
Figure 2: Support in medical documentation assistants, n = 160, figure in percent, source: FH Burgenland

The question "Which medical documentation tasks could a medical documentation assistant perform?" yielded interesting results. The participants were asked if documentation assistants could potentially perform such tasks on their own, or if they would just provide support. Documentation on their own would mean that the medical documentation assistant is responsible for DRG coding and creates examination reports while the doctor is performing the examination. The doctor would only check the completed documentation.

Providing documentation support, on the other hand, means that the doctors themselves generate the documentation, which the medical documentation assistant then verifies. Two thirds of the participants said that medical documentation assistants could document on their own (Figure 3).
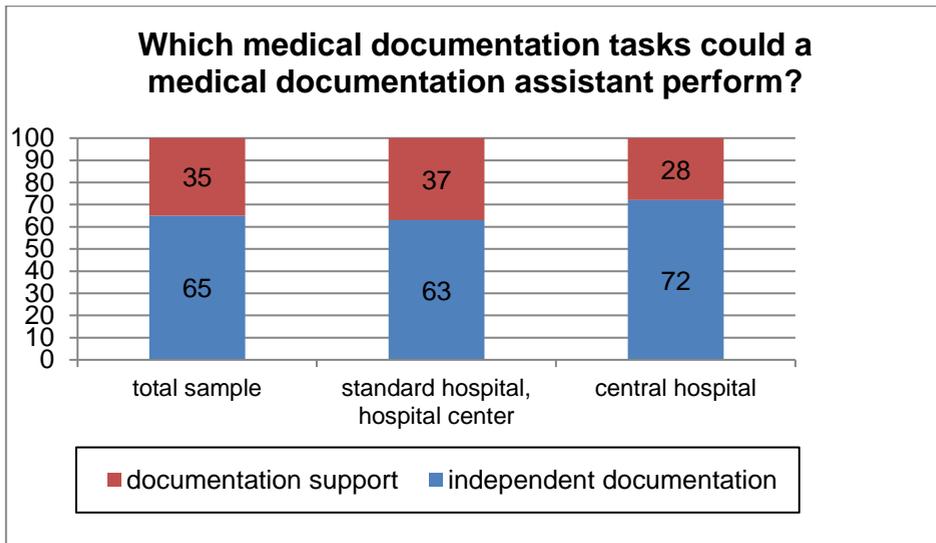
Figure 3: Assignments a medical documentation assistant could fulfil, n = 120, figure in percent, source: FH Burgenland

Both groups of doctors said that the greatest benefit of employing medical documentation assistants would be the "time saved" (92%), and "more complete documentation" would be the second most important benefit (63%). In third place, doctors employed at central hospitals cited the "better data quality" (55%), while those employed at standard hospitals or hospital centres cited the "economic benefits" (53%) that could be derived from an LKF optimization (Figure 4).
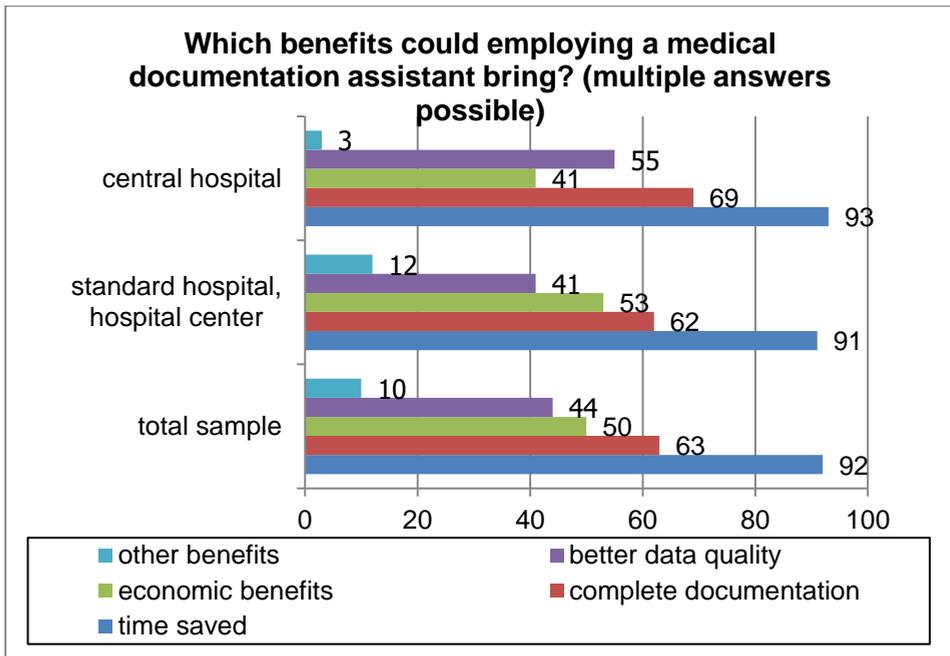
Figure 4: Benefits of employing a medical documentation assistant, n = 120, figure in percent, source: FH Burgenland

Another question asked how doctors would use the additional time they would gain by employing a medical documentation assistant. The most frequent answers were "caring for patients", "diagnosis and anamnesis" and "patient information" (Figure 5). These results show that doctors would like to have more time for their core tasks. Other potential uses of time gained the doctors mentioned were advanced training and meetings and scientific activities in standard hospitals and hospital centers. In addition to scientific activities and advanced training, doctors in central hospitals would spend their additional time on focused medical work.
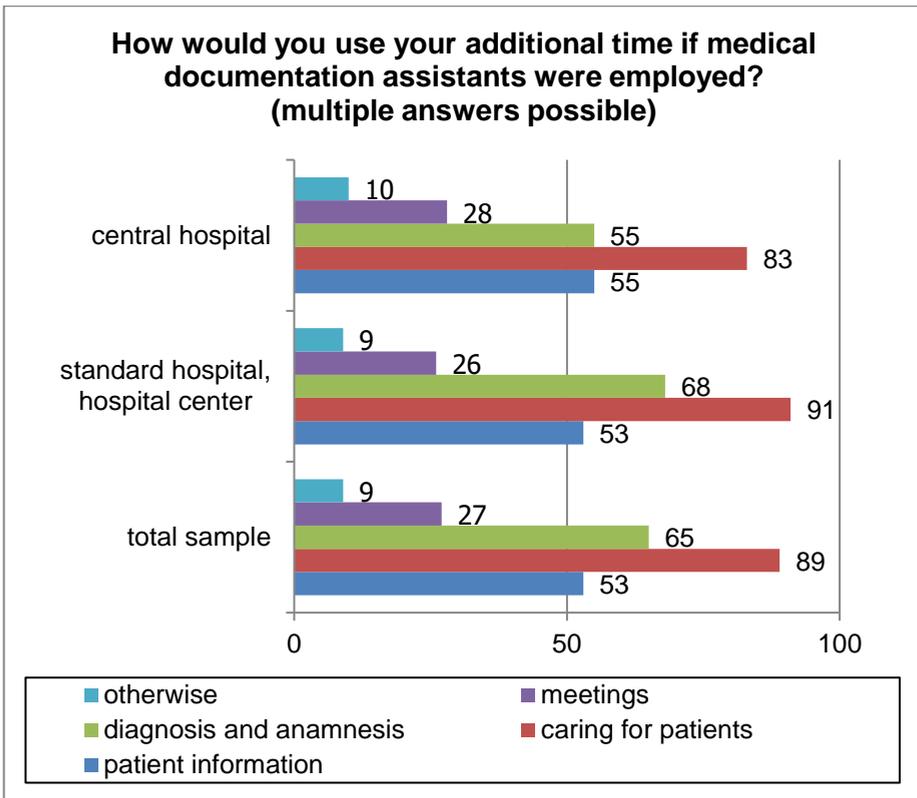
Figure 5: Use of additional time, n = 120, figure in percent, source: FH Burgenland

Figure 6 shows the doctors' opinions regarding necessary qualifications for a medical documentation assistant. Other qualifications, which are not listed in figure 5 mentioned by doctors from standard hospitals and hospital centres are knowledge of medical terminology, computer skills and autonomy. Communicative competencies and numbers-oriented sense have a higher priority for doctors working in central hospitals than they do for doctors working in standard hospitals and hospital centers.
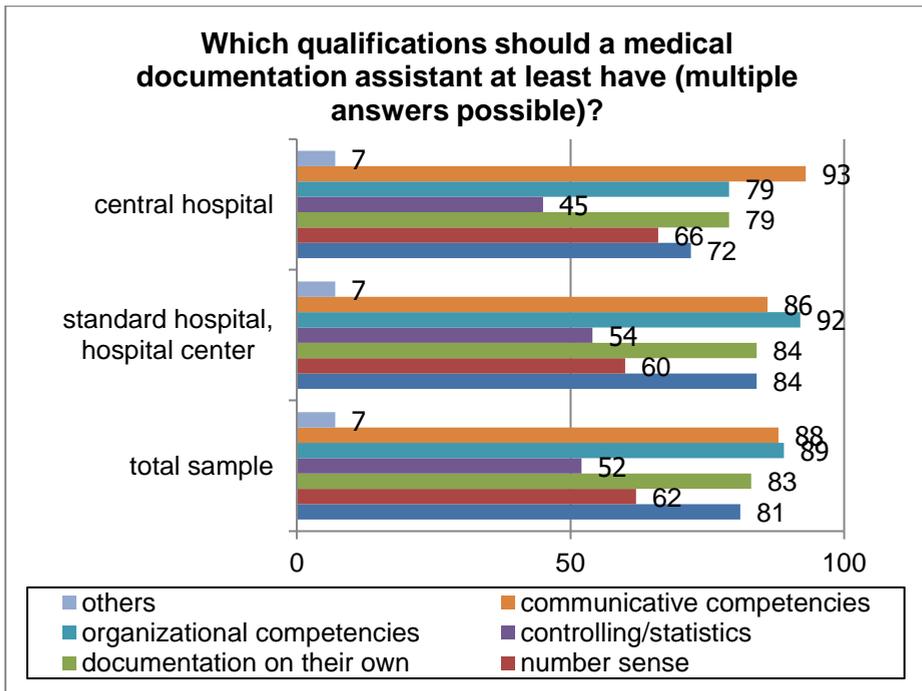
Figure 6: Qualifications of a medical documentation assistant, n = 120, source: FH Burgenland

A closer look at the results concerning the doctors' views on the demand for medical documentation assistants reveals a greater belief in the potential benefits of medical documentation assistants among doctors in standard hospitals and hospital centres, younger doctors and male doctors, as opposed to doctors working in central hospitals, older doctors and female doctors.

Results of the qualitative expert interviews

A comparison of the quantitative study results and the results of the qualitative interviews yields a more coherent picture. The experts interviewed also believe that there is a high demand for medical documentation assistants.

Similar to the doctors, experts also say that medical documentation assistants could support doctors in organizational tasks, thereby leaving the doctors with more time to spend communicating with patients. This could, in turn, improve job satisfaction among doctors.

The interviewees working in hospital administration feel that medical documentation assistants should be part of their organizational unit. One reason for this is that it would enable central control and consistent data editing. Administrative directors see the greatest potential benefit of medical documentation assistants in optimizing DRG coding and medical controlling. In contrast, the doctors interviewed said that it is important to integrate medical documentation assistants directly into the medical sector, in order to really provide relief for doctors.

Both medical and administrative directors think that there are many different tasks a medical documentation assistant could perform, including handling organizational activities, coordinating appointments for medical operations, making lists, quality and risk management, and medical controlling.

4   Discussion

The results of the study show that there is a high demand for medical documentation assistants in order to ensure the transparency of procedures for managing performance in hospitals. This study expands knowledge about medical documentation by examining the viewpoints of doctors and administrative directors. In addition to the support medical documentation assistants could provide, this was the first study to scientifically investigate the potential tasks and necessary qualifications of this new professional group from the medical and administrative perspectives.

Employing medical documentation assistants could bring many advantages. The job satisfaction of doctors could be improved if they had more time to treat patients, which could in turn lead to improvements in patient satisfaction.

Besides hospitals, medical documentation assistants could also be employed in other health organizations. Meeting the demand for medical documentation assistants will require adequate education and training for this new professional group. Following the model of Germany, the authors see potential in integrating medical documentation as a specialisation in bachelor studies such as health management. Another possibility would be to provide further training to nursing and medical staff.

In conclusion, qualified medical documentation staff is needed to meet current challenges in the Austrian health care system.

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An Influence of Music on Human Being – Music Therapy in Clinical Praxis – Example of a Treatment

TOMAŽ STRADOVNIK

Abstract In this article at first the general impact of music on the human being is highlighted. In the following, we encounter the commonly used definition, what actually music therapy is, and what are its advantages as also its opportunities to use music for healing purposes. The qualified music therapist can provide the client with the indicated treatment including creating, singing, moving to, and/or listening to music. Such form of treatment can be used as individual or group therapy form, in children, adolescents, adults, as well as in elderly persons. Finally, we become familiar with one of the possible fields of using music therapy in clinical praxis - using of musical therapy in the treatment of young people addicted to drugs.

Keywords: • impact of music • music therapy • music therapist • client • healing effects •

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1 Music and emotions

As an art, music is an indispensable part of human life. In all ages, music has always been a kind of special channel to express human emotion. It plays an important role in many social contexts such as weddings, furnerals, and parties. Music affects us in a way that is personal: music energizes, suprises, soothes, delights, and otherwise shapes our emotional states. Research in cognition and neuroscience supports the idea that pleasure and emotions are key motivations for listening to music. Not only that music activates »pleasure centres« in the brain, it can communicate and induce a range of powerful emotions. Resulting from a wide range of investigations, it has been suggested that the various attributes of music, such as intensity, tempo, dissonance, and pitch height are strongly associated with emotional expressions. For example, melodies that are played with a slow tempo tend to evoke emotions with low energy such as sadness, whereas melodies that are played at fast tempo tend to evoke emotions with high energy, such as anger or joy. (1)

2 Use of music for healing purposes: music therapy

Music therapy is both an art and a science. Art and science are acts of discovery, imagination, and inspiration that give rise, on the one hand, to symbolic and aesthetic expression and, on the other hand, to verifiable and investigative expression. Both give a fresh world view, resliced the universe in a different way, and both are human creations (2, 3).

Fundamental reasons for the efficacy of using music as a therapeutic agent are as follows:

- It is a cross-cultural mode of expression.
- Its nonverbal nature makes it a universal means of communication.
- As a sound stimulus it is unique in its power to penetrate the mind and body directly, whatever the individual's level of intelligence or health need.
- As such, it stimulates the senses, evokes feelings and emotions, elicits physiological and mental responses, and energizes the mind and body.
- Its intrinsic structure and qualities have the potential for self-organization of the individual and organization of the group.
- It influences musical and non-musical behaviour.
- It facilitates learning and the acquisition of skills.
- It is an eminently functional, adaptable, and aesthetic modality applicable to all client populations. (2, 3)

Music therapy (MT) is a non-verbal approach to the person using instruments and music in general, the use of interventions to accomplish individual goals within a therapeutic relationship by a professional who has completed an approved music therapy program. It

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is based on the fact that music is capable of influencing the human mind and emotions, as well as the numerous physical processes.

The idea of music as a healing influence which could affect health and behaviour is as least as old as the writings of Aristotle and Plato. In 1950, The National Association for Music Therapy (NAMT) was established and at Conference in Washington they defined a musical therapy as: *Music therapy is the scientific use of music to achieve the following therapeutic goals: to restore, maintain and improve mental and physical health* (4). It began to be used in various directions of medicine, most often in psychiatry, internal medicine and paediatrics. Today it is as a listening or with the use of wind instruments so wide-spread that it is useful in many areas of medical help: to prepare the anxious patients to undergo surgery, as an intraoperative music, which may help patients achieve appropriate depths of sedation (5); asthmatics can learn to breathe regularly and gain better breath control by blowing a horn or other wind instrument; it was found that levels of cortisol, the stress hormone, decreased greatly in those listening to the dance music compared to the group listening to tones; studies of epileptic patients have shown that Mozart's music has a beneficial effect on the brain of some of them; it was found that music can actually have a significant positive impact on patients with long-term illnesses, such as heart disease, cancer and respiratory conditions. Music can be incredibly useful for somebody who is in a situation where they have lost a lot of control from their external environment as they are in hospital for a long period of time with a serious illness and less able to move around. (6)

Study at Tel Aviv University has shown that half an hour of playing Mozart every day had an amazing effect on premature babies. The babies who listened to the music grew much faster than those who weren't listening to the music; even in elderly patients music can have positive effects and bring elderly patients with dementia into the present - unlike anything else. (6)

Research found that classical music is the most helpful type of music for health. A team of researchers at the University of Toronto found that even insomniacs got help falling asleep by listening to some classical music before bedtime. A team of researchers at the University of Toronto found that even insomniacs got help falling asleep by listening to some classical music before bedtime. (6)

After assessing the strengths and needs of each client, the qualified music therapist provides the indicated treatment including creating, singing, moving to, and/or listening to music. Through musical involvement in the therapeutic context, clients' abilities are strengthened and transferred to other areas of their lives. MT also provides avenues for communication that can be helpful to those who find it difficult to express themselves in words. (4)

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Through a planned and systematic use of music and music activities, the music therapist provides opportunities for:

- Promoting Wellness
- Managing Stress
- Alleviating Pain
- Expressing Feelings
- Enhancing Memory
- Improving Communication
- Promoting Physical Rehabilitation (4)

MT can help to relieve pain and reduce stress and anxiety for the individual, resulting also in physiological changes, including:

- Improved respiration
- Lower blood pressure
- Improved cardiac output
- Reduced heart rate
- Relaxed muscle tension

MT sessions include the use of active music making, music listening, and discussion. It can be implemented in both, as individual and group therapy forms and is useful in children, adolescents, adults, and in elderly. (7, 8)

3   Example of music therapy: drug addicted patients

As we know, all countries encounter the problem of illicit drug users. It is estimated that there are around 25 million illicit drug users in the world, out of which 13 million are problematic illicit drug users.

In Slovenia, drug use is not allowed; it is a misdemeanour, and a criminal offence. We have a network of 18 centres for prevention and treatment of drug addiction. CZOPD (Centre for treatment of drug addiction) started its programme in 1995 at the detoxification ward.

We at the Centre believe that addiction is first and foremost a disease which affects our body, our mind and emotions, behaviour, spirituality, and our relations with others. The treatment is carried out in three units – in three different phases. Hospital care is implemented in the first two. As a rule, the patient first enters the treatment at the closed unit, the 1st phase of treatment, where 17 beds are available (8 for women and 9 for men). This unit is specialised for weaning off psychoactive substances and stabilisation of drug addicts. This programme lasts for 6 weeks. A patient addicted to heroin or some other opiate, is at the detoxication unit with methadone, buprenorphine, or morphine.

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The basic instrument for treatment is group psycho-socio-therapy. The studies primarily show that music therapy reduces symptoms identified within a specific psychiatric diagnosis, but at this unit, music therapy is not included into the treatment programme.

From the closed unit, the patient continues his treatment at the half-open unit, the 2nd phase of treatment which lasts 8 weeks. The programme decreases the possibility of repeated infringement and enables the insight into the causes and forms of addictive behaviour and helps develop skills for successful reintegration. At the unit, the programme of psychosocial rehabilitation begins. The patients actively participate in various therapeutic groups, such as: psycho-drama, expressive movement group, art classes, social skills training, and music therapy.

At this unit, patients are not allowed to bring musical recordings, CDs, or other equipment for playing or listening to music. This is strictly forbidden. In this way they have the opportunity to learn how to escape from trigger. This term stands for the occurrence where the patient consciously revives his thoughts and feelings, which he had while using illicit drugs, and thus consciously relives the moments of pleasure and, while listening to music, visualizes specific details of getting high (time and place). In this case, the patient substitutes music with drugs and thus retains the indirect contact.

Music has an important role with patients addicted to drugs. The role of music was revealed in the time of direct drug use. Drug users are deeply traumatised and search for common points amongst each other, which connect them. In most cases this is music which is contextually and thematically related to drugs. The music is specific, speaks about the problems of society, about getting high as the only pleasure, this music is not optimistic, to the contrary, it is dark, without hope, for patients it is realistic, drug users can find themselves in it, and identify themselves with it. The musical choice of drug users is fairly narrow. Most often they listen to songs of only a few different bands or the music of just one performer. In any case this is an inappropriate – risky music, which strongly affects their decisions. Patients often state that it is the music which is the most important in the moments of waiting for the drug dealer. This is the music which gives them courage, hope, strength, music which understands them and where they seek shelter. This is the music which, in the given moment, eases their tension and drowns out the feeling of guilt.

The basic goals of music therapy in the treatment of addicted patients are:

- development of verbal communication and expression of the emotional experiencing of feelings with the help of specific, therapeutically chosen music;
- recognition of emotional experience;
- increase in the ability of experiencing;
- encouragement of positive experiencing;
- decrease and lessening of negative emotions (insecurity, anger, fear, guilt, shame, tension)

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- increase in concentration of listening to music;
- increase in the ability of empathy;
- experiencing the relaxation.

Sub-goals of music therapy in the treatment of addicted patients are:

- development of socialisation;
- strengthening of non-verbal expression (singing songs, playing the instruments, dance)
- encouragement of creativity (in general);

Incorporated into the programme of treatment at the half-open unit is also group music therapy, which is an auxiliary diagnostic and therapeutic means in the complete patient approach and is oriented above all toward the emotional world of the patient. The first visit to music therapy is obligatory for the patient, all others are optional. Statistically, music therapy is after the first obligatory visit continued by over 90 % of patients. In rare cases, individual patients are able to have individual music therapy. Such cases are those patients, who were at the time of their addiction or drug abuse closely connected to music and their musical engagement meant a serious hobby or even their professional career. These patients are carefully guided through the process of healing with music because these patients are after de-toxication in emotional resistance with music and come face to face with music with more difficulty than others.

Music therapy is in this unit an open group and is implemented once a week, it lasts 45 minutes at the precisely set hour and day. We encourage patients to focus on the music as best as they can and to listen to it in complete silence. The musical repertoire is chosen by the music therapist and includes various musical styles. Classical music has the majority; instrumental music of other styles is often included. We rarely choose songs with lyrics because the message of the piece limits the patient in his experience of music and imposes on him the written story.

The group consists of 8 members on average, mostly men, average age is 25. The group session begins with a short introduction of a new member. The introduction consists of a verbal part – the patient speaks about his attitude towards music; and the non-verbal part – the patient sings a part of his favourite song or plays an instrument (keyboard, guitar). This type of introduction helps the initial relaxation of the patients, which is often followed by an active form of music therapy (singing of songs), in which the new patient actively participates and where he partly relaxes.

In this unit, patients do not have the possibility to bring their own music due to the above-mentioned reasons. I always choose the music myself and here I consider the following

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rules: the piece may not be too long, it has to have an expressively changing dynamic (forte – piano, with rhythmic or melodic accent), and for the purpose of creating tension and relaxation it should include dissonances and consonances, preferably with the change in rhythm and tempo. The piece should be played at the appropriate volume (not too quietly) and it should be allowed to touch us with its energy and vibrations.

Such pieces of music arouse in a patient various kinds of emotions. The music is listened to in complete silence, preferably with eyes closed (looks across the room and members of the group are thus prevented) – in this way we enable better concentration. Due to years of living as addicts, stigmatisation, unsettled family circumstances, and poor interpersonal relationships patients are affected on several levels. Music makes it difficult for them to concentrate, their concentration is disturbed, they have more problems identifying and expressing their emotions. But this does not mean that they do not experience or feel the music. It is quite the contrary. After listening to the piece their spontaneous verbalisation of emotions and associations follows. They experience the music very strongly, mostly through visualisation. Associations are usually connected to their past.

I would like to state the most frequently expressed emotions about the listening to the piece, which correspond to the above-mentioned criteria and belong to the short list of music played at the music therapy groups: composer Richard Wagner – *Die Walkure:* tension, fear, aggression, anger, desperation, defeat, insecurity, inner struggle. This composition was felt to be too strong, physical change like increased heart beat, irregular breathing, sweating of palms, uneasiness, feeling of weakness and trembling (shaking) voice occurred. The most frequent associations and visualisations along this music were the scenes of getting high, drug dealing, acts of violence – fights and various quarrels.
After the conclusion of music therapy, I first familiarise the members of the team with the group dynamic, contents and course of the therapy, I state my observations about individual patients, and content of what they said. In the process of healing, this is a very important transfer of information for them.

After the completed hospitalised treatment we recommend that the patient be admitted to the day care, the 3rd phase of treatment, or to the further off-clinic, individual or group treatment. Day care is intended for all those patients who have established the abstinence and need further intensive treatment for the successful upkeep of abstinence and help with possible associated mental disorders and rehabilitation.

The treatment is held three times a week. The programme lasts 6 months on average and it can be prolonged if this is the decision of the therapeutic team.

Other therapeutic goals are mostly directed towards reintegration, rehabilitation, and work with the family. The activities to achieve these goals are social skills training, small group, work therapy, psychodrama, evaluation group, music therapy, sports activities, and a group for making plans.

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Music therapy is here also included in the programme. It is held once a week, it lasts 45 minutes, number of participants is 12 on average, and is of both genders. The participation is obligatory for all patients. Men prevail in number. In this phase of treatment, patients can bring their own music. We arrange for each music therapy in advance and choose who will bring the music. In principle, I do not limit them in their choice of music but rather steer them to the constructive musical choice. In this phase of treatment, the patients have already become aware of which music is not appropriate for them or is even risky in the moment of mood deterioration, motivation and will decrease, or sense of abstinence due to the desire of drugs. Here I am talking about a specific kind of music, which they have listened to in the time before the beginning of treatment. These are music bands such as Red Hot Chili Peppers, Nirvana, The Doors, Pink Floyd, Metallica, Janis Joplin etc. Members of these bands were drug users. In this phase of treatment, patients have the appropriately critical attitude towards this kind of music, they reject it, do not listen to it, and they deliberately do not attend concerts and parties, where drugs are present.

At each music therapy we listen to two pieces of music, one by the patient's choice and one by the music therapist's choice. The most frequent technique is a receptive form of music therapy. After listening to the music, the patient states his reasons as to why this piece is important for him, what it reminds him of, he verbalises his emotions, and often deals with his past along with the music. One constant feature is the feeling of uneasiness and fear how the piece of music will be accepted by the members of the group despite the fact that the purpose of bringing music is not to please members of the group or the therapist.

I always include into the programme those pieces of music that the patients have already heard at the Department for intensive long-term treatment (2nd phase of treatment). I usually place these pieces into the last half of the treatment because I want the longest possible time of hospitalisation to pass between both times when the patient has listened to the same piece of music. In this time period, the patient with intensive work on himself changes his position about drugs, changes his behaviour, follows his therapeutic goals, and changes his life style, but at the same time his experience of listening to music changes, too.

Precise notes on patient's experience have shown which piece of music has the strongest impact on patients. This is again Richard Wagner's Die Walkure.

To illustrate, I would like to enumerate the most frequently expressed emotions about this composition: positive adrenalin, positive energy, experiencing tension and relaxation, optimism, the feeling that I can do anything, rebirth, successful overcoming of problems, expectation. Physical changes are also present here: increased heartbeat. Patients most frequently visualise and associate victorious scenes of battles, sports games, conquering and liberation, memories of childhood (playing with their father). After listening they are

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in a better mood, motivated for treatment and abstinence, the music strengthens their goals, gives them courage and chases away their fears.

4   Conclusion

Music has been put to use in hospitals, nursing homes, and has been incorporated into numerous different residential and adult day care centres. The therapy has had a significant effect on reducing aggression and agitation among residents.

Adolescents are particularly susceptible to the effects of music. We also find that a music therapy has a strong influence on addicted to illicit drugs joung patients and that it can help them with their biggest goal – sustain abstinence and change their lifestyle accordingly.

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