How does the suffering of cancer patients affect us? Reviewing the physical and mental wellbeing of hospice workers

Abstract

**Background.** The physical and mental burden of the hospice workers is increasing in Hungary. The development of physical, psychological and social symptoms might enhance the fluctuation of caregivers. Our main goal is to help the hospice care professionals more effectively in preventing physical and mental fatigue.

**Material and methods.** Based on the international databases we reviewed the literature on the physical and mental state of health care workers who deal primarily with terminally ill patients. We focused on English language articles published between 2000 and 2013, primarily on studies presenting research results related to palliative and hospice care workers.

**Results.** Among 40 international studies found in our search, we discarded those that concentrated only on a specific area of the issue leaving 16 international studies subject to a more detailed examination. A great advantage of reviewing the literature was the detailed examination of the mental state and coping strategies of hospice health workers. A relatively new element in research is the analysis of the relationship between compassion satisfaction, compassion fatigue, and burnout (relationship between negative and positive effects), that covers symptomatology and coping as well.

**Conclusion.** All these aspects lead to a better understanding of causes and to more effective methods that are helpful in preventing physical and mental fatigue of hospice professionals.

**Key words:** hospice, palliative care, burnout, compassion satisfaction, compassion fatigue

Introduction

Hospice-palliative care has existed in Hungary since 1991, and there have been studies aiming to assess the physical-mental state of those caring for patients with incurable illness in Hungary since 2000 [1, 2]. In Hungary there were 87 hospice services in 2013 and 95 in 2014. (The number of inhabitants is 9.9 million and the number of cancer deaths is 33.000/year.) However, when examining the data from the 2014 hospice report, it was striking to see that though the number of hospice services was growing each year, the increase in the number of doctors, nurses and other health professionals was not adequate (Tab. 1).
The physical and mental state, and the risk of burnout of those caring for patients with incurable illness.

2. Fear of death among health care workers and its management in the course of trainings.

The research outcomes were based primarily on the Hungarostudy survey, in which the physical and mental status of the Hungarian population had been assessed [2–6].

Moreover, comparing to the previous surveys, the number was expressly decreasing, while the number of patients receiving care was constantly growing. In 2013, 1562 health professionals and volunteers provided care for 7862 terminally ill patients and in 2014, 1537 caregivers provided care for more than 8800 patients (patients’ average length of stay in hospice care is 30 days). This may indicate that the physical and mental burden of caregivers has intensified, and this may lead to the development of physical, psychological and social symptoms, burnout, that might enhance the migration and fluctuation of caregivers.

The authors of the present study are not only researchers but active hospice workers and lecturers as well; thus the practice, experience, and the need to find solutions motivated us to review the international literature of the past fifteen years, the results, and conclusions related primarily to the physical and mental state of hospice-palliative care workers.

The research goal was to survey and systematically analyse the international literature dealing with the physical and mental state of hospice health care workers in different countries. Our main goal is to have a better understanding of the underlying causes and to be able to help the hospice care professionals more effectively in preventing physical and mental fatigue.

The Hungarian background of our literature review

In the past fifteen years, a research group [3] under the leadership of Katalin Hegedűs at the Institute of Behavioural Sciences at Semmelweis University, Budapest, conducted research in the following two areas:

1. The physical and mental state, and the risk of burnout of those caring for patients with incurable illness.

2. Fear of death among health care workers and its management in the course of trainings.

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Due to the impact of research studies, the knowledge of palliative care has gained a greater role in graduate and post-graduate training, and has focused on the specific psychosocial, cultural, spiritual, ethical questions, knowledge of symptomatology, development of communication skills, self-awareness, and self-reflection.

Besides examining the attitudes related to death and dying, Katalin Hegedüs and her co-workers also performed an effective study of trainings dealing with this issue. According to their results the aggregated values (the levels of stress) decreased after the trainings. In both groups improvements were recorded especially in attitudes that can be attributed to knowledge acquired in the quality care of dying patients [4].

Material and methods

In our review we focused on English language articles published between 2000 and 2013, in PubMed, Scopus, MEDLINE Ovid and Google Scholar databases, primarily on studies presenting research results related to physical and mental status of palliative and hospice care workers.

During the course of analyzing the international literature, the most interesting experience was the “development” of keywords. The number of publications resulting from our first search was very low, however, with the help of the keywords found in these articles we could proceed and further develop our search. “Professional burnout” and “hospice care” as search terms developed as follows: “hospice care” turned into “hospice workers,” then “hospice caregivers.” Instead of the word “burnout” the expressions “somatic and mental morbidity” and later the “support hospice staff” proved efficient. This process was thought provoking because arranging the keywords of the reviewed literature (altogether 45 types) we found that the most frequent words used by authors (at least twice) were “burnout,” “nurses,” “end-of-life care,” “hospice,” “palliative care” and “stress.” When using the databases, it was instructive to find how incidental the professional terms were. The creative combination of expressions, the complex search and cross-examinations led to more hits and more successful searches [3].

In order to explore the appropriate literature it was a great help to search the research groups working on similar topics and their publications, e.g. through the European Association for Palliative Care we found the Canadian, Australian, and British work groups.

During the course of searching the databases, priority was given to publications that presented research results or the findings of previous research studies. The exclusion criteria included dissertations, abstracts, and lectures. Considering that we have experience primarily in providing care and education for adults, and that the care provision for children may pose special questions, the publications tackling this issue were not selected in our present study. Our database search resulted in finding altogether 40 international studies. Furthermore, based on our search words we discarded those publications that examined only specific areas of the issue, for example the prevention or treatment of burnout, the analysis of communication techniques used in the course of hospice care, articles describing or explaining various psychosocial symptoms.

Finally, we included 16 international studies that were published in 9 scientific journals, mostly authored by English, American and Canadian researchers. Based on their content, 11 were original articles, 4 were review articles and 1 was a case study (Tab. 2). Two thirds of the studies were written in or after 2010. Articles written before 2010 that were included in our study contained aspects or methods that have not been given enough attention before [3].

It is interesting that in our narrow topic, 9 articles were published in palliative scientific journals, and 4 out of them were published not in medical journals but in journals for professional workers (Tab. 2). This supports our experience that researchers most frequently analyze the occupational circles of palliative care, especially the qualified health care workers: in 6 cases the articles dealt only with this group [7–12]. Some research studies focused instead on physicians or volunteers [10, 13, 14].

Results

In the course of our literature search (Tab. 2) we found only a few comparative studies, as comprehensive ones as our previous Hungarian surveys, that assessed the physical and mental status of health care workers who provide care for patients with advanced illness [8, 9, 13]. Complex analyses of hospice workers were extremely rare. In five studies, Canadian [15, 16], American, British and Dutch researchers [17–19] focused on the comprehensive study of the multidisciplinary team.

The number of participants in the publications presenting research results was usually lower. We found five articles where the sample was higher (n = 117–630), [9, 13, 15–17]. Of these, three examined a broad circle of workers who work in different professional fields [15–17].

Among the original articles, six studies used questionnaires [8, 9, 13, 15–17]. In all other cases [9],
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Semi-structured interviews, open questions or case study analysis were used. We only found two studies that contained anonymous self-completion questionnaires including demographic and work related data based on the assessment of mental state and coping, respectively [8, 13]. The research by Ramirez et al. (1995) aimed at examining physical parameters as well [13]. The shortcoming of the study by Ostacoli et al. (2010) was the results did not include physical state, family status or leisure activities [8]. Three research studies used the Professional Quality of Life Scale (ProQOL), a 30-item questionnaire developed since 1995, to measure compassion fatigue and compassion satisfaction [15–17].

Among international research, the studies analyzing work stress and reducing work stress were most frequent. The most striking stress sources, similar to those found in previous studies as well as Hungarian studies, were: poor communication, lack of emotional support, need for further training and information, coping with death and dying, lack of tools, low esteem, sense of failure, and patients receiving palliative-hospice care too late [10, 18–20].

Studies focusing on efficient coping examined personal aptitude such as openness, flexibility, use of humor, maintaining a healthy work-life balance and good social relationships [7, 14, 17]. More emphasis was placed on analyzing social support received from co-workers, employers, and managers [9–12, 18, 19] and the importance of self-help groups [9]. The international review also supported that those working in hospice-palliative care were less affected by burnout than those working in oncology departments or other health areas [8, 9, 11, 13, 21]. Providing care for dying patients and the presence of death-related thoughts were risk factors [9], however, the hospice nurses showed lower burnout indicators in this study as well.

Another Canadian research group reported similar results (although they did not refer to each other’s work): among 169 nurses and mental health workers (social worker, psychologist, psychiatrist, coordinator, and mental health worker) employed in various work areas (not primarily hospice) a higher level of compassion satisfaction correlated with lower compassion fatigue [16]. This latter study described in details the correlations of compassion fatigue and compassion satisfaction and their basic literature. According to the article in most cases compassion fatigue, a term coined by Joinson in 1992, results from the act of being compassionate, or as Figley states, “bearing the suffering of others”, becoming preoccupied with the patient, which could lead to fatigue [16]. Compassion fatigue has been compared to post-traumatic stress disorder, the only difference is that it emerges on account of other people’s trauma; therefore it is also called secondary or vicarious traumatic stress, and it is described as the price for caring [22].

Preoccupation with the situation of the traumatized patient is characterized by reliving the events that caused the trauma, avoidance of situations and feelings reminding of the trauma, continuous agitation, and distress in relation to the patient. Further symptoms may be sleep disorder, frequent nocturnal awakening, intrusive dreams, and angry outbursts. These symptoms hinder optimal work performance. Studies on nurses found that nurses continue to care for patients even when they experience physical and emotional pain, and they are physically and emotionally exhausted, however, they do not allow this to be shown and recognized. While according to many literature sources burnout derives primarily from the interaction between health care workers and their work environment, compassion fatigue is described as the result of stress stemming from the relationship between the patient and the health care worker. Caregivers working with dying patients are exposed to both [12, 16, 22].

According to Phelps et al. (2009) compassion satisfaction refers to those who live through their caregiving as a positive experience. Simply stated, compassion satisfaction is “the ability to receive gratification from caregiving” [16].

In coping with compassion fatigue, just as in preventing and treating burnout, maintaining work-life balance and drawing a line between these two is greatly emphasized: it is important to acquire a balanced life which enables to work to reinforce satisfaction and well-being, instead of being only a risk factor. Researchers have highlighted the important role of the following individual strategies: sufficient sleep, optimum nutrition, regular exercise, massage, humor and various techniques such as meditation, relaxation, and self-reflection. Institutional strategies include adequate degree of freedom, and development of personal awareness and community rituals. Emphasis has also been put on the support from supervisors and providing opportunities to cope with emotions primarily through case discussion groups and supervision [12, 20].

Conclusion

The most important finding of our literature review was the measurement and results on compassion fatigue and compassion satisfaction. Beside the prevention of burnout, prominent attention should also be given to shaping attitudes related to compassion fatigue and compassion satisfaction in education and further training hospice/palliative care professionals. In
hospice/palliative trainings providing freedom from symptoms, pain relief, and physical-psychological well-being were presented as a measure of success in therapy. However, the knowledge of compassion fatigue and compassion satisfaction makes it possible to pay attention to another aspect apart from the relationship between workers and work environment that has received less emphasis, namely the relationship between health care workers and patients. Its clinical importance in practice is that more responsible role may be given to techniques targeting the awareness and improvement of our relationship with patients beside the significance of workplace environment and self-awareness in preventing burnout. ProQOL is a short practical self-assessment measure for identifying and treating Professional Compassion Fatigue (PCF) that raises the question: does a regular screening for compassion fatigue and compassion satisfaction help prevent the development of burnout? Based on this, we plan to validate the Hungarian version of the ProQOL questionnaire and incorporate it into everyday practice.

In clinical practice this may provide an opportunity to enhance coping: developing appropriate support programs by taking into account the special overload. It will be an exciting task to determine how the Western-European, American, and Canadian examples correlate with experiences in Hungary.

References
Table 2. Summary of the international literature review

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<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Journal (year of publ.)</th>
<th>Country</th>
<th>Type of publication</th>
<th>Methods, measures</th>
<th>Participants</th>
<th>Main outcomes and conclusions</th>
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</thead>
<tbody>
<tr>
<td>1. Burnout and psychiatric disorder among cancer clinicians</td>
<td>AJ. Ramirez J. Graham MA. Richards A. Cull WM. Gregory MS. Leaning et al.</td>
<td>British Journal of Cancer (1995)</td>
<td>UK</td>
<td>Original article</td>
<td>1. Measuring the sources of work related stress and satisfaction by using study-specific questions that were aggregated into four factors 2. Measuring psychiatric disorders by using the General Health Questionnaire 3. Measuring the three components of burnout: emotional exhaustion, depersonalization and low personal accomplishment by using the Maslach Burnout Inventory</td>
<td>UK sample: 393 out of 476 (83% response rate) non-surgical oncologists, 126 palliative care specialists</td>
<td>Providing care for patients and their relatives as well as the existence of adequate resources evoked satisfaction among palliative care workers. Significant differences were found in perceiving stress between the examined groups: lower stress values were measured among palliative care specialists in comparison to clinical oncologists related to the factor “Feeling overloaded and its effects on home life”</td>
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<td>2. ABC of palliative care. The carers</td>
<td>A. Ramirez J. Addington-Hall M. Richards</td>
<td>BMJ (1998)</td>
<td>UK</td>
<td>Review article</td>
<td>Comprehensive, descriptive study</td>
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<td>Summary of work stress, satisfaction, psychiatric disorders of carers: how to improve mental health. The prevalence of psychiatric morbidity among palliative care doctors was 25%. Stress can be mitigated by the content of patients and their relatives</td>
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<td>3. Caring for caregivers: experiences and evaluation of interventions for a palliative care team</td>
<td>A. L van Staa A. Visser N. van der Zouwe</td>
<td>Patient Education and Counseling (2000)</td>
<td>NL</td>
<td>Original article</td>
<td>The weekly case discussion groups / staff support meetings that were developed in the Netherlands based on a UK-model were evaluated for a year. The aim was to measure stress and to explore the characteristics of stress factors. The questionnaire survey was administered four times, thereafter the results were compared, and supplemented with interviews</td>
<td>The questionnaires were filled out by 24 people in the multidisciplinary team: doctors, nurses, dietitians, physiotherapists, secretary</td>
<td>Emphasis was placed on the importance of social support within the work place!</td>
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<td>4. Caregiver stress and burnout in an oncology unit</td>
<td>AC Sherman, D. Edwards, S. Simonton, P. Mehta</td>
<td>Pall and Supp Care (2006)</td>
<td>USA</td>
<td>Review article</td>
<td>Search strategy: online databases</td>
<td>Selection criteria: English language studies in reviewed journals, period: January 1989 — December 2004. Focus on burnout and psychosocial distress among oncology physicians and nurses</td>
<td>Methodologically well-structured review. Result: burnout and psychological problems were typical of oncologists and palliative care specialists. About 50% of physicians and one third of other staff (nurses, social workers, pharmacists, etc.) suffered from high emotional exhaustion. Approximately half of the participants in both groups experienced low personal achievement and a high number reported high level of work stress</td>
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<td>5. Resilience and well-being in palliative care staff: A qualitative study of hospice nurses’ experience of work</td>
<td>JR. Ablett, RSP. Jones</td>
<td>Psycho-Oncology (2007)</td>
<td>UK</td>
<td>Original article</td>
<td>Semi-structured interviews. Themes: 1. Active choice of working in palliative care 2. Previous personal experience 3. Personal attitude to care 4. Personal attitudes towards life and death 5. Personal spiritual awareness 6. Personal attitude towards work 7. Aspects of satisfaction with work 8. Aspects of work stress 9. Coping methods 10. Personal or professional problems and limitations</td>
<td>10 hospice nurses, 9 women, 1 man</td>
<td>It was characteristic of most nurses to use behavioral and cognitive coping strategies both during and after work. These strategies were: sharing problems with colleagues, using humor, maintaining a healthy work–life balance and building good social relationships. The article highlights the personal aptitude, the openness, flexibility, resilience as the factors enhancing successful coping</td>
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<td>6. Self-care of physicians caring for patients at the end of life</td>
<td>MK. Kearney, RB. Weininger, MLS. Vachon, RL. Harrison, BM. Mount</td>
<td>JAMA (2009)</td>
<td>USA-CAN</td>
<td>Case study</td>
<td>Comprehensive, descriptive article presenting two cases</td>
<td>Defining compassion fatigue (CF) vs. burnout. Burnout is the result of stress stemming from the interaction between health care workers and work environment; CF results from the relationship between patient and the health care worker, described as the ‘cost of caring.’ Secondary or vicarious traumatization. Physicians can perform with CF, yet through compromise, and this leads to burnout. Presenting the symptoms of CF</td>
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<td>7. Strategies for avoiding burnout in hospice and palliative medicine: Peer advice for physicians on achieving longevity and fulfillment</td>
<td>KM. Swetz SE. Harrington RK. Matsuyama TD. Shanafelt LJ. Lyckholm</td>
<td>Journal of Palliative Medicine (2009)</td>
<td>USA</td>
<td>Original article</td>
<td>Qualitative research, participants were contacted by e-mail. The aim was to explore the common features of burnout-prevention strategies of specialists. The length of responses varied from one sentence (11 words) to several sentences (189 words). Researchers analyzed the common features and coded the responses into thematic classes by commonalities</td>
<td>Hospice and palliative medicine physicians, 11 women and 19 men</td>
<td>According to the outcomes, physical well-being was the most common strategy reported as a factor preventing burnout, followed by professional relationships, talking with others and remembering the patient who died. Despite the low number of participants, the results are thought provoking</td>
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<td>8. Comparison of experienced burnout symptoms in specialist oncology nurses working in hospital oncology units or in hospices</td>
<td>L. Ostacoli M. Cavallo M. Zuffraineri M. Negro E. Sguazzotti R. Luigi Picci, et al.</td>
<td>Palliative and Supportive Care (2010)</td>
<td>CAN</td>
<td>Original article</td>
<td>Survey using self-administered anonymous questionnaires: demographic and job related characteristics (age, sex, clinical setting, work experience). Measures: Italian versions of the Maslach Burnout Inventory (MBI), Hospital Anxiety and Depression Scale (HADS), Attachment Style Questionnaire (ASQ) Disadvantage: low sample size, the role of other factors were not analyzed (e.g., family status, number of children, leisure activities)</td>
<td>Oncology nurses working in hospital oncology units (n=59) and specialist oncology nurses working in hospices (n=33). Response rate: 82%</td>
<td>This study analyzed the contribution of individual and environmental factors in the development of burnout. Oncology nurses: high level technical interventions; hospice nurses: high level interventions involving personal touch. Nurses working in hospital units showed higher levels of burnout symptoms (emotional exhaustion, depersonalization, and low personal achievement) than hospice nurses. The clinical setting/environment, and the distance between possible and ideal goals increased frustration and predicted burnout</td>
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<td>9. An investigation into the perceived stressors for staff working in the hospice service</td>
<td>A. Hackett S. Palmer</td>
<td>International Journal of Palliative Nursing (2010)</td>
<td>UK</td>
<td>Original article</td>
<td>Focus group survey to identify stressors</td>
<td>Six people from each hospice unit (interdisciplinary, but no volunteers)</td>
<td>The study provided useful information since it identifies stressors. Expectations, change, support from supervisor, support from co-workers, self-care and the examination of the sub-categories from the aspect of the necessary coaching</td>
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<td>10. Understanding compassion satisfaction, compassion fatigue and burnout: A survey of the hospice palliative care workforce</td>
<td>S. Slocum-Gori, D. Hemsworth, W.W.Y. Chan, A. Carson, A. Kazanjian</td>
<td>Palliative Medicine (2011)</td>
<td>CAN</td>
<td>Original article</td>
<td>Description of the validation of the Professional Quality of Life Scale (ProQOL) Stamm, <a href="http://www.proqol.org">www.proqol.org</a> (2005)</td>
<td>From the national database 630 hospice workers (2010, clinical, administrative, workers and volunteers, institutional and home care) - similar to our research</td>
<td>Validity description of ProQOL. Analyzing the relationships among compassion satisfaction (CS), compassion fatigue (CF), and burnout (relationships between negative and positive effects). Significant correlation was found between CS and burnout, CS and CF respectively. There was a significant positive correlation between burnout and CF.</td>
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<td>11. Professional burnout and social support in the workplace among hospice nurses and midwives in Poland</td>
<td>M. Kalicińska, J. Chylińska, E. Wilczek-Różyczka</td>
<td>International Journal of Nursing Practice (2012)</td>
<td>PL</td>
<td>Original article</td>
<td>Cross-sectional questionnaire survey: Maslach Burnout Inventory (MBI), Psychosocial working conditions questionnaire, that is used to observe the psychosocial work conditions in companies and institutions. It is based on Karasek’s demand-control model</td>
<td>The whole sample: 117 nurses, 59 midwives, 58 hospice nurses, all women</td>
<td>There was a relationship between social support at work and burnout, the risk of exposure to death differed. The latter was the greatest stressor among hospice nurses. The sources of stress among midwives were the long working hours and the use of new technologies. Hospice workers suffered less from burnout. Explanation: social support, especially social support at work had an impact on burnout. Self-support groups: effective form of support.</td>
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<td>12. Professional compassion fatigue: What is the true cost of nurses caring for the dying?</td>
<td>C. S. Melvin</td>
<td>International Journal of Palliative Nursing (2012)</td>
<td>USA</td>
<td>Original article</td>
<td>Semi-structured interview with 10 questions (attached). The main issues of the research: the risk of PCF among nurses caring for the dying, that has physical and emotional consequences in the coping of hospice and palliative nurses with death</td>
<td>Six highly experienced nurses from a home health agency (11–33 years of work experience)</td>
<td>CF hindered the optimal performance of health care workers. Nurses continued their work despite their deep physical and emotional pain, and they hid these from others. Despite their physical, spiritual, and emotional exhaustion they kept providing care for patients. Coping methods of nurses and nurse managers were described in details.</td>
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<td>13. A narrative literature review of the contribution of volunteers in end-of-life care services</td>
<td>S. Morris A. Wilmot M. Hill N. Ockenden Sh. Payne</td>
<td>Palliative Medicine (2012)</td>
<td>UK</td>
<td>Review article</td>
<td>The parameters of the review were extensive in order to analyze as many details of voluntary work as possible. Most English language articles published between 2000–2011 on research and survey related to adult end-of-life care were selected (except those conducted in prisons)</td>
<td>Seven electronic databases, key journals, academic literature database, 68 articles were included in the analysis</td>
<td>Motivation to volunteer in end-of-life care varied according to age. In young volunteers career was the main motivation, in older volunteers it was social motivation. Stressors were poor communication, lack of emotional support, insufficient training and information, dealing with the patients’ relatives, coping with death and dying, lack of tools/resources, the patient receives end-of-life services too late, feeling undervalued by medical staff, unable to do more for the patients and their families. The important role of the volunteer coordinator/manager as a contact person and support person: fostering the work of the volunteer</td>
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<td>14. Is work stress in palliative care nurses a cause for concern? A literature review</td>
<td>L. Peters R. Cant K. Sellick M. O’Connor S. Lee S. Burney</td>
<td>Inter-national Journal of Palliative Nursing (2012)</td>
<td>AUS</td>
<td>Review article</td>
<td>Reviewing databases, 1990–2010 (16 studies were selected out of the initial 113 studies)</td>
<td>Hospice and palliative care nurses</td>
<td>Methodologically essential review. The selected 16 studies and the results were summarized in a table. The stress level of hospice nurses was higher than that caused by work conditions and role conflict etc. Managers/supervisors had a key role in finding solutions to these problems</td>
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<td>15. Compassion satisfaction, compassion fatigue, work life conditions, and burnout among frontline mental health care professionals</td>
<td>SL. Ray C. Wong D. White K. Heaslip</td>
<td>Traumatology (2013)</td>
<td>CAN</td>
<td>Original article</td>
<td>Professional Quality of Life Scale (ProQOL), Areas of Work Life Scale (AWS), Maslach Burnout Inventory — General Survey (MBI-GS) Demographic Data set</td>
<td>Frontline mental health care professionals: 169 nurses and mental health workers (social workers, psychologists, psychiatrists, case managers, mental health workers)</td>
<td>Describing the definition and the basic literature of compassion satisfaction (CS), compassion fatigue (CF) and burnout. A correlation was found between higher level CS and lower level of CF. The six areas of work life (Maslach) were predictors of burnout: work load, control, reward, community, fairness, values</td>
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<td>16. Stress, burnout, compassion fatigue, and mental health in hospice workers in Minnesota</td>
<td>RR. Whitebird SE. Asche GL. Thompson R. Rossom R. Heinrich</td>
<td>Journal of Palliative Medicine (2013)</td>
<td>USA</td>
<td>Original article</td>
<td>Short Form-12 Health Survey Version 2 (SF-12) Short Form 36 Health Survey (SF-36) Patient Health Questionnaire 8 (PHQ8) Professional Quality of Life Scale (ProQOL) Medical Outcomes Social Support Survey (MOS) coping strategy: listing 12 activities</td>
<td>In the state of Minnesota 547 hospice workers (interdisciplinary, but no physicians)</td>
<td>High stress scores. Stress relief activities: primarily social support and physical activity. Table: what participants consider important from the aspect of reducing work stress and burnout</td>
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