

PhD Thesis: burnout among Dutch medical residents

Jelle T. Prins¹

1 University of Groningen,
Groningen, Netherlands

Introduction

Medical residents (postgraduate trainees in a medical specialty) fulfil an important role in the Dutch health care system. They take their share of the responsibility for efficient patient care in hospitals, mental health care centres, rehabilitation centres and other medical institutions. Medical residents see the period of postgraduate training as a phase in which finding a balance between training, work and private life plays an important part. Not much was known about the extent to which the stress felt by residents causes them to develop symptoms of burnout. It was also unknown which factors determine the actual development of burnout. The research which was carried out therefore revolved around the incidence of burnout among medical residents in the Netherlands. It also looked into the potential risk-heightening or risk-lowering effects of a number of demographic and work-related factors. The aims of the studies were the following:

- to determine the prevalence of burnout among medical residents;
- to study the effect of individual and work-related factors on burnout;
- to examine the relationship between burnout and the quality of care.

In order to answer the research questions, two cross-sectional studies were carried out. The first study involved medical residents at University Medical Centre Groningen; the second all 5245 medical residents in the Netherlands.

First Study

For the first study on the prevalence of burnout, medical residents at University Medical Centre Groningen in the Netherlands were approached. The Utrecht BurnOut Scale (UBOS/MBI-HHS) was used. This self-assessment form was sent to 292 medical residents. The response rate was 54%. The results show that 13% of the respondents claimed to experience moderate to severe burnout. The highest percentage of burnout was found among residents in psychiatry. Looking into the effects on burnout of emotional, informative and appreciative support experienced by residents from supervisors, fellow residents, nurses and patients showed that medical residents ap-

peared to be less satisfied with the perceived emotional support from supervisors than with the support they received from colleagues and nurses. A significant relationship was established between dissatisfaction with emotional and appreciative support from supervisors and emotional exhaustion felt by residents. A link was also established between dissatisfaction with emotional support from supervisors and increased feelings of depersonalization. Medical residents also reported on the degree of reciprocity (the balance between pain and gain in relationships) that medical residents experienced in their working relationships with for example their supervisors. Only 13% of the residents experienced over-benefit in their relationships with their supervisors, 41% claimed under-benefit and 46% reported a good balance between give and take in the relationship (reciprocity). Medical residents who experienced under-benefit in the relationship with their supervisors reported significantly more emotional exhaustion and depersonalization than residents who experienced reciprocity in the relationship. Contrary to what we assumed, there did not appear to be any significant link between number of years in training and the perceived reciprocity in relationships.

National study

For the national study, all medical residents registered with the Medische Registratie Commissie (Medical Registration Committee) in 2005 were approached (N=5245); 41% responded. Of the respondents, 20.6% were classified as having burnout and 14.6% and 6% of these had moderate and severe symptoms respectively. Eleven per cent of the respondents appeared to be highly engaged, 23.2% of the residents scored above the cut-off point on vigour, 36.4% on dedication, and 27.8% on absorption. Medical residents with a partner and/or children scored significantly lower on depersonalization than residents who did not have partners and/or children. The percentage of residents with symptoms of burnout was lowest in the group of residents in general surgery, followed by residents in obstetrics & gynaecology and in the supportive specialties (such as radiology, pathology). Residents in general surgery were much more engaged and vigorous than residents in other surgical specialties, internal medicine, other medical specialties, supportive specialties

and psychiatry. It also appeared that residents in general surgery were more dedicated and more absorbed in their work than residents in the supportive specialties.

In the national study 94% of the residents admitted to having made one or more errors which had no negative consequences for their patients, 71% claimed to have performed procedures that they were not actually competent to carry out and 56% admitted to having made one or more errors that had negative consequences for the patient **during their training so far**. Seventy five per cent of the respondents felt that the quality of the treatment they had given was inadequate. Male residents reported more errors than female residents. The group of residents in general surgery reported the highest numbers of errors in procedures compared with residents in other specialties. Medical residents in internal medicine also reported more errors than their colleagues in a number of other specialties. Medical residents in psychiatry reported the highest number of errors relating to time problems. Medical residents with symptoms of burnout appeared to report significantly more errors than residents who did not satisfy the criteria for burnout. Highly engaged residents reported fewer errors than their less engaged colleagues.

Conclusions

The two empirical studies included in the dissertation revealed that burnout among medical residents is no exception. The last and most comprehensive study made clear that nationwide 20.6% of medical residents experienced burnout. The Central Bureau for Statistics (CBS) in the Netherlands reported that 8-11% of the Dutch labour force was burned out. When the CBS criteria for assessing burnout were applied to the residents in the national study, the burnout percentage jumped to 41% – a prevalence that is four times higher than that in the national labour force. Although interesting from a research point of view, these percentages are troublesome from a health care perspective, especially since burnout was not only found to influence personal distress but also the quality of delivered care.

The conclusion that many residents experience an unbalanced relationship with their supervisor, which affects their well being in a negative way, is worrisome. A relationship with a supervisor is usually seen as a resource which should have positive connotations with well-being. Medical residents experience the relationship with their supervisors not only as one in which they under-benefit but they are also dissatisfied with the social support they receive from their supervisors. These factors contribute directly to the development of burnout in medical residents.

Medical residents, like other young 'high potentials', are believed to excel in different areas at the same time: work, training and private life. It could be that in the present culture medical residents are overburdened. Balancing work, training and private life can lead to unin-

tended effects for medical residents. One might question if the responsibility for keeping in balance during residency should rest on medical residents only. In the new competency driven training programmes medical residents have to be able to organize a balance between patient care and self development. However it can be questioned if today's residents are being taught the art of balancing during their training.

The author

Prins J.T. Burnout among Dutch medical residents, University of Groningen, juni 17th 2009 (see Figure 1 and 2), Promotor: prof. dr. H.B.M. van de Wiel, copromotor dr. J.E.H.M. Hoekstra-Weebers. 143 pages



Figure 1: Jelle Prins

| Name | Jelle T. Prins |
|-----------------|--|
| 1994 | Completed his studies in Andragogy at the University of Groningen. Specialization: organizational andragogy |
| 1994-2006 | Held various positions within the University Medical Center Groningen, including internal management consultant, interim manager and researcher and within the Medical Faculty of the University of Groningen / University Medical Center Groningen as tutor, mentor and examiner. |
| 2002 | Start PhD survey among medical residents at the University Medical Center Groningen |
| 2005 | Start nationwide survey of medical residents in the Netherlands |
| 2006-2009 | Independent change manager, coach and consultant for various groups and organizations |
| 2009 | PhD degree for his thesis entitled Burnout among Dutch medical residents. Promotor: prof. dr. H.B.M. van de Wiel. Co-promotor: dr. J.E.H.M. Hoekstra-Weebers |
| Recent position | Manager at a Mental Health Care Institution in Groningen Researcher and member of the Board of the Dutch Doctors Foundation (Artsen Stichting Nederland) |

Figure 2: Portfolio Jelle Prins

Corresponding author:

Prof. Dr. Jelle T. Prins
University of Groningen, Groningen, Netherlands
jelleprins@artsenstichtingnederland.nl

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