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Work-home balance in two cohorts of Norwegian doctors

ORIGINAL ARTICLE

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BACKGROUND

Stress linked to the balance between work and home, so-called work-home interface stress, may affect the health and life situation of doctors. Reports have shown an increase in job-related stress among Norwegian doctors. We wished to investigate the development trends for this type of stress in the period 2003–14.

MATERIAL AND METHOD

Work-home interface stress was measured with the aid of three questions from a validated scale, on which the respondents reported their level of stress on a scale from 1 (no stress) to 5 (very high level of stress). The measurements were made 10 and 15 years after graduation in two cohorts of doctors who had received their training within six years of each other. We used the t-test and chi-square test to compare the cohorts and to compare gender within each cohort, and linear regression analysis to adjust for any confounding factors.

RESULTS

Doctors who had graduated later (later cohort, n = 248) reported significantly lower levels of work-home interface stress than doctors who had completed their studies six years earlier (early cohort, n = 197) (average score (standard deviation) 2.2 (1.0) vs. 2.6 (1.0), p = 0.001). This correlation remained significant after adjusting for other explanatory variables, such as gender (woman), number of children, weekly working hours and collegial and partner support. Fifteen years after graduation there were no differences between the cohorts in terms of perceived work-home interface stress. Within the cohorts there were no significant gender differences at any point of measurement. After adjustment for partner support and working hours, being a woman gave a significantly increased risk of experiencing work-home interface stress.

INTERPRETATION
Doctors who graduated later, experienced less work-home interface stress than those who had received their training earlier. The experience of stress was buffered in women who perceived their partner as supportive and had reduced working hours.

Main message

Doctors who received their training later (1999) perceived less work-home interface stress ten years after graduation than doctors who graduated six years earlier (1993/94)

Shorter working hours, fewer children and more support from their colleagues and partners were factors associated with less work-home interface stress

In 2017, the doctors' duty to attend to their own health was included in the universal doctors' pledge (1). Taking care of one's own health becomes more difficult when conflicts arise between the doctor's role as a professional and as a private individual (2–5). A recent study discusses how the doctors' professional culture may help spur this conflict (6). 'The good doctor' feels a strong commitment to completing all work duties and describes the difficulties involved in balancing this against domestic responsibilities. Job-related burdens that affect the situation at home, so-called work-home interface stress, increase the risk of burn-out, depressive symptoms, poor quality of life, troubled partner relationships and a desire to change jobs (5). A Norwegian study has shown that reducing this type of stress is a key measure to improve the situation for burned-out doctors (7). This finding is supported by a study showing that work-home interface stress has a strong bearing on the risk of burn-out among Norwegian doctors, and among women in particular (8).

Norwegian doctors report increases in unacceptable workloads (9, 10). Altogether 40 % experience stress associated with constant reorganisations (10), such as the GP reform (2001), the hospital reform (2002), the Capital City project (2009) and the Coordination Reform (2012), on top of local restructuring processes. We can increasingly observe how doctors, especially young female doctors, seek help because of heavy workloads and large responsibilities (11, 12).

Better work-home balance was a key topic when the hospital doctors went on strike in 2016. The decision by the Labour Court of Norway in 2017 was probably the first time, even internationally, that doctors obtained legal support for the importance of having a private life.

In 2018, a majority of the doctors working in Norway were women, and the proportion of women is increasing (13). Moreover, since a growing number of doctors also have partners with their own careers (14), the work-home balance is further challenged for both genders. In Norway, we find smaller gender

differences in work-home interface stress than what is seen internationally (15, 16). However, we do find gender differences in ways of coping with stress: women reduce their working hours to a greater extent than men (17).

With an increasing proportion of female doctors and a growing number of doctors with partners who are also working, we wished to study the development of work-home interface stress. Because this development can also be affected by factors such as number of children, the doctors' weekly working hours and the social support they receive from partners and colleagues, we wished to include these factors.

Material and method

NORDOC (The Longitudinal Study of Norwegian Medical Students and Doctors) is a follow-up study of two cohorts of doctors who graduated within six years of each other (1993/94 and 1999) and who were recruited from all four Norwegian universities that train medical professionals (17). The cohorts were merged (N = 1 052) and compared at four points in time (at graduation and 4, 10 and 15 years after graduation). A total of 90 % (947/1 052) responded at least once, and 42 % (450/1 052) responded at all four points in time.

The data in question stem from surveys undertaken 9–10 years after graduation (data collected in 2003 for the early cohort and 2008 for the later cohort, n = 708, response rate 67 %) and 14–15 years after graduation (data collected in 2008 and 2014 respectively, n = 598, response rate 57 %).

Measures

The effect variable, perceived work-home interface stress, is one of four dimensions in an adapted and validated version (4, 17) of Cooper's Job Stress Questionnaire (18). For the question 'To what extent are the following situations/factors burdening (stressful) for you?' three statements were provided: 'The job has a negative effect on my family life / on striking a balance between work and private life / The job has a negative effect on my social life'. The statements were scored from 1 (no burden) to 5 (very high burden), and averages were calculated.

We have used the following explanatory variables: age in years (continuous); sex (1 = woman, 2 = man); marital status (1 = married or co-habiting, 0 = single, separated, divorced or widowed); number of children (categorised from 0–3 or more children, with dummy variables whereby having 1–2 children or 3 or more children respectively were compared to having no children); number of weekly working hours (including regular hours, voluntary or imposed overtime (continuous)). Part-time work was defined as < 37.5 hours/week. Because of the high correlation between number of working hours and part-time work, only the number of working hours were used in the regression analysis. Support from colleagues was measured as an average of the questions 'To what extent have you felt supported by your colleagues in the medical community?' and 'To what extent do you in general feel well at work among your colleagues?', where the respondents scored from 1 (not at all) to 7 (to a very

high extent) (17). Support from partners was measured as an average of the questions 'If things are bad at work, I find support and comfort in my partner', 'My partner is flexible when it comes to shopping for groceries, cooking dinner, picking up the children and similar if I have to work overtime', 'My partner thinks that I work too much' and 'My partner is often dissatisfied and grumpy when I work too much overtime' (the latter two are reversed) (17), with scores ranging from 1 (is not the case at all) to 5 (is absolutely the case). Medical position was categorised as 1 = general practitioner, 2 = senior consultant, 3 = specialty registrar and 4 = other. In the regression analysis we made dummy variables whereby each category was compared to specialty registrars.

Statistics

We used the software package SPSS Statistics 22, and compared continuous data with the aid of the t-test and categorical data with the chi-square test.

The explanatory variables for perceived work-home interface stress 10 and 15 years after graduation (cohort, age, gender, marital status, number of children, job category, working hours, perceived collegial support and partner support) were investigated using linear regression analysis (Table 1). In the adjusted analysis we included gender and age, as well as all explanatory variables with a $p<0.10$ in the unadjusted analyses. The significance level was set to < 0.05 (Table 2). To study whether gender and cohort affiliation had an impact on the effects of the other variables, we conducted interaction analyses between significant variables and gender and cohort affiliation respectively.

Table 1

Demographic data, working hours, work-home interface stress, support from colleagues and partners and type of medical position 10 and 15 years after graduation for two cohorts of 248 and 445 doctors respectively. The number of respondents for the different variables vary from 367 to 445. Average (SD) unless otherwise specified.

	10 years after graduation			15 years after graduation		
	Early cohort (2003)	Later cohort (2008)	Difference, Chi-square/ t-value (p-value)	Early cohort (2008)	Later cohort (2014)	Difference, Chi-square/ t-value (p-value)
Sex, women (%)	54	61	0,145	54	61	0,145
Age in years	38 (2,9)	38 (2,7)	0,528	43 (2,9)	43 (2,7)	0,528
Children (%)			0,309			0,075
0	17	14		11	5	
1	12	14		8	6	
2	42	49		38	46	
3 or more	29	23		44	43	
Marital status, has a partner (%)	85	86	0.738	88	89	0.636

	10 years after graduation			15 years after graduation		
	Early cohort (2003)	Later cohort (2008)	Difference, Chi-square/ t-value (p-value)	Early cohort (2008)	Later cohort (2014)	Difference, Chi-square/ t-value (p-value)
Hours per week	44 (7.7)	42 (9.2)	0.004	42 (10.9)	43 (11.7)	0.352
Working part-time (%)	10	19	0.013	23	18	0.307
Perceived work-home interface stress	2.6 (1.0)	2.2 (1.0)	0.001	2.3 (1.0)	2.3 (0.9)	0.717
Collegial support	4.9 (1.2)	5.0 (1.1)	0.176	4.8 (1.2)	5.5 (1.2)	< 0.001
Support from partner	3.8 (0.7)	3.8 (0.7)	0.797	3.7 (0.7)	3.7 (0.7)	0.444
Medical position (%)			0.163			0.774
GP	17	21		19	21	
Senior consultant	26	18		56	56	
Specialty registrar	43	49		10	11	
Other	14	11		15	12	

Table 2

Gender differences in demographic data, working hours, work-home interface stress, support from colleagues and partners and type of medical position ten years after graduation for two cohorts of 248 and 197 doctors respectively. Averages (SD) unless otherwise specified.

	Early cohort (10 years after graduation)			Later cohort (10 years after graduation)		
	Women	Men	P-value	Women	Men	P-value
Age in years	38 (2.9)	38 (2.7)	0.915	38 (2.4)	38 (2.0)	0.816
Children (%)			0.335			0.154
0	21	13		14	15	
1	10	13		17	9	
2	43	41		43	58	
3 or more	26	33		26	18	
Marital status, has a partner (%)	84	88	0.357	86	88	0.609
Hours per week	43 (7.8)	45 (7.5)	0.057	40 (8.5)	44 (9.9)	0.017

	Early cohort (10 years after graduation)			Later cohort (10 years after graduation)		
	Women	Men	P-value	Women	Men	P-value
Working part-time (%)	12	7	0.168	22	13	0.124
Perceived work-home interface stress	2.7 (1.0)	2.5 (1.0)	0.082	2.2 (0.9)	2.4 (1.0)	0.220
Collegial support	4.9 (1.3)	4.8 (1.2)	0.548	5.1 (1.0)	4.9 (1.2)	0.387
Support from partner	3.9 (0.6)	3.6 (0.6)	0.004	3.9 (0.6)	3.6 (0.6)	0.003
Medical position (%)			0.078			0.002
GP	18	16		18	27	
Senior consultant	20	32		12	29	
Specialty registrar	50	36		56	38	
Other	12	16		14	6	

In the regression analyses we have included only those who have entered responses to all of the relevant variables. The number of respondents included in the regression analysis is stated in the tables.

Those who have answered the questions about work-home interface stress at the two points in time are on average two years younger than non-respondents ($p = 0.008$). There is no significant difference in the gender distribution.

Ethics

The study was approved by the Regional Committee for Medical and Health Research Ethics (REK), South East Norway (2010/788a) and by the Data Protection Authority via the Norwegian Social Science Data Service.

Results

Study participants

Altogether 445 persons (248 from the early cohort and 197 from the later cohort) answered questions about perceived work-home interface stress in both surveys (9–10 and 14–15 years after graduation)

There were no significant differences between the cohorts in terms of age, gender distribution, marital status, number of children or type of medical position (Table 1).

Ten years after graduation there was a significantly higher level of work-home interface stress in the early cohort when compared to the later one, with an average score of 2.6 (SD 1.0) versus 2.2 (SD 1.0), $p < 0.001$ (Table 1), but no significant differences between the groups 15 years after graduation. Within the cohorts there were no significant gender differences in stress levels at any point in time. Table 2 shows a comparison of the two cohorts by gender ten years after graduation. Fifteen years after graduation there were only a few specialty registrars in both cohorts, and the gender differences were equivalent to those observed ten years after graduation (data not shown).

Explanatory variables

In the adjusted analysis we found that belonging to the early cohort ($p < 0.001$), being a woman ($p < 0.001$) and having one or two children versus none ($p = 0.015$), or having three or more children versus having none ($p = 0.015$), having more working hours per week ($\beta=0.03$, $p < 0.001$), experiencing less collegial support ($p < 0.001$) and less partner support ($p < 0.001$) increased the likelihood of experiencing more work-home interface stress ten years after graduation. The model has an explained variance of 34 % (adjusted $R^2 = 0.34$) (Table 2). The unadjusted analyses are presented in Table 3.

Table 3

Predictors of work-home interface stress ten years after completion of medical studies in two cohorts (n = 338 who answered all variables). Unadjusted and adjusted linear regression with unstandardised β and p-values.

	Unadjusted		**Adjusted[1]**	
	Unstandardised beta	**P-value**	**Unstandardised beta**	**P-value**
Cohort (0 = early cohort, 1 = later cohort)	-0.39	< 0.001	-0.37	p < 0.001
Sex (1 = woman, 2 = man)	-0.10	0.344	-0.44	p < 0.001
Age	0.02	0.436	0.005	0.763
GP versus specialty registrar	-0.01	0.923		
Senior consultant vs. specialty registrar	0.05	0.368		
Other vs. specialty registrar	-0.12	0.485		
One or two children vs. none	0.21	0.219	0.39	0.015
Three or more children vs. none	0.37	0.047	0.46	0.015

	Unadjusted		Adjusted[1]	
	Unstandardised beta	P-value	Unstandardised beta	P-value
Marital status (1 = married/ co-habiting vs. 0 = single, separated, divorced, widowed)	0.51	0.070	0.34	0.196
Number of hours per week	0.04	< 0.001	0.03	< 0.001
Collegial support	-0.20	< 0.001	-0.15	< 0.001
Partner support	-0.68	< 0.001	-0.64	< 0.001

[1]Corrected R^2 = 0.34 for the model

Fifteen years after graduation we found similar correlations, except that having children was no longer a significant predictor in the adjusted model (Table 4).

Table 4

Predictors of work-home interface stress fifteen years after completion of medical studies in two cohorts (n = 327 who answered all variables). Adjusted and unadjusted linear regression with unstandardised β and p-values.

	Unadjusted		Adjusted[1]	
	Unstandardised beta	P-value	Unstandardised beta	P-value
Cohort (0 = early cohort, 1 = later cohort)	0.05	0.615	0.07	0.476
Sex (1 = woman, 2 = man)	-0.08	0.461	-0.33	< 0.001
Age	-0.03	0.167	-0.03	0.067
GP versus specialty registrar	-0.006	0.976		
Senior consultant vs. specialty registrar	-0.062	0.740		
Other vs. specialty registrar	-0.33	0.150		
One or two children vs. none	0.31	0.177	0.19	0.982
Three or more children vs. none	0.38	0.094	0.23	0.226

	Unadjusted		Adjusted[1]	
	Unstandardised beta	P-value	Unstandardised beta	P-value
Marital status (1 = married/ co-habiting vs. 0 = single, separated, divorced, widowed)	0.09	0.740		
Number of hours per week	0.02	< 0.001	0.02	< 0.001
Collegial support	-0.19	< 0.001	-0.12	0.002
Partner support	-0.66	< 0.001	-0.57	< 0.001

[1]Corrected R^2 = 0.33 for the model

The impact of gender and cohort

In the unadjusted analyses we found no correlation between gender and work-home interface stress at any of the points of measurement (Tables 3 and 4). After adjustment for support from partners (which women reported to a higher extent than men (Table 2)) and for working hours (which were lower for women than for men (Table 2)), being a woman gave a significantly higher risk of experiencing work-home interface stress (Tables 3 and 4). Support from partners and reduced working hours thus buffered the experience of stress among women.

There were no significant interaction effects between gender or cohort and the significant predictors in the adjusted analyses.

Discussion

Despite reports of increasing levels of stress among doctors (10, 11), including in the context of restructuring in the health services (11), we find a decrease in perceived work-home interface stress approximately ten years after graduation in the later cohort. Approximately 15 years after graduation we find no differences between the cohorts. In contrast to international studies (15, 16), men and women in Norway report equally high levels of work-home interface stress (19). However, women report to receive more support from their partners and to work somewhat fewer hours than men, and this turns out to alleviate the experience of stress among women.

Work-home interface stress levels have been shown to increase during the initial years as a doctor and then decrease in the period 10–15 years after graduation (4, 17). Most likely, this is related to changes in the family situation (the children grow older) and better opportunities for adapting the job situation as the doctors become specialists and senior consultants (20). In Norway, considerable resources have been devoted to facilitation for parents

when both are working, including generous parental leave schemes and the right to reduced working hours. This may explain the lower number of weekly working hours in the later cohort ten years after graduation. In addition, the rate of day-care coverage for children aged 1–5 increased from 62 % to 89 % in the period 2000–10 (21).

In addition to these societal changes, a generational change in the professional culture towards a perception of the medical profession as a job, more than as a lifestyle, may have helped younger doctors draw a clearer boundary between their work and their private life (3, 9). A recent Swedish study shows that the possibility of having a good work-home balance was seen as more important than future salary by both male and female medical students (22). The Norwegian hospital doctors' strike in 2016 is also indicative of an increased awareness of the importance of this balance.

Today, men and women face many of the same challenges in striking this balance. However, ten years after graduation, female doctors in the later cohort adapt to the challenges of everyday life by working fewer hours per week than their male colleagues. They spend longer in specialisation training and are likely to have taken more parental leave and worked less than full time. We did not find these gender differences in the early cohort at the same point in time. Given the increasing proportion of female doctors (14) there is a need for this knowledge at the system level, with a view to estimation of the need for medical positions.

However, the healthcare services need professionally dedicated doctors who are adaptable, not least when it comes to restructuring processes. The desire for a high degree of workplace presence, demands for a high work capacity and the opportunity for a home office may tie the doctors more closely to their job and challenge the work-home balance (9). Doctors and employers need to take joint responsibility for promoting the health of doctors by limiting prolonged stress and making provisions for an appropriate balance (9).

Strengths and weaknesses

The main strength of this study is its prospective design that permits comparison of groups of doctors 10–15 years into their career with a 6–7 year time lag, as this makes it possible to investigate changes over time.

In this longitudinal follow-up study of doctors, the response rate 9–10 years after graduation and 14–15 years after graduation was 67 % and 57 % respectively for both cohorts. In longitudinal studies, the response rate tends to decrease over time, but is nevertheless higher than in a number of international cross-sectional studies among doctors (23). Based on the few differences between the participants in the NORDOC study and our participants, we assume that the study is fairly representative of doctors trained in Norway in the 1990s (data not shown). Because of immigration of doctors in recent decades and Norwegians who have studied abroad since the 1990s, the findings are likely to be less representative for equivalent age cohorts today.

Conclusion

The study shows a correlation between lower levels of work-home interface stress and shorter working hours, and that such stress for women is buffered by support from their partner. The findings may indicate that for women in particular, drawing a boundary between work and private life has become somewhat easier. Norwegian welfare benefits, such as parental leave, the possibility of working less than full time and almost complete day-care coverage, enhance such opportunities.

In the years to come, the requirement to pay greater attention to the needs of doctors as a group will continue, as well as collegial collaboration to advocate for system-level provisions to enable doctors to attend to their work-home balance and their own health.

LITERATURE

1. Parsa-Parsi RW. The revised declaration of Geneva: A modern-day physician's pledge. JAMA 2017; 318: 1971–2. [PubMed][CrossRef]

2. Greenhaus JH, Beutell NJ. Sources of conflict between work and family roles. Acad Manage Rev 1985; 10: 76–88. [CrossRef]

3. Hertzberg TK, Skirbekk H, Tyssen R et al. Dagens sykehuslege – fremdeles alltid på vakt. Tidsskr Nor Legeforen 2016; 136: 1635–8. [PubMed][CrossRef]

4. Hertzberg TK, Rø KI, Vaglum PJ et al. Work-home interface stress: an important predictor of emotional exhaustion 15 years into a medical career. Ind Health 2016; 54: 139–48. [PubMed][CrossRef]

5. Dyrbye LN, Sotile W, Boone S et al. A survey of U.S. physicians and their partners regarding the impact of work-home conflict. J Gen Intern Med 2014; 29: 155–61. [PubMed][CrossRef]

6. Hertzberg TK, Skirbekk H, Tyssen R et al. Den gode legen – sterk og utholdende. Tidsskr Nor Legeforen 2016; 136: 1631–4. [PubMed][CrossRef]

7. Isaksson Rø KE, Tyssen R, Hoffart A et al. A three-year cohort study of the relationships between coping, job stress and burnout after a counselling intervention for help-seeking physicians. BMC Public Health 2010; 10: 213. [PubMed][CrossRef]

8. Langballe EM, Innstrand ST, Aasland OG et al. The predictive value of individual factors, work-related factors, and work-home interaction on burnout in female and male physicians: a longitudinal study. Stress Health 2011; 27: 73–85. [CrossRef]

9. Aasland OG, Rosta J. Hvordan har overlegene det? Overlegen 2011; 1: 47–55.

10. Aasland OG, Rosta J. Norske leger i spesialisering – hvordan har de det? Forum for yngre leger 2013: 21–3.

11. Isaksson Rø K, Aasland O. Støttelegers syn på støttekollegaordningen. Tidsskr Nor Legeforen 2016; 136: 313–6. [CrossRef]

12. Nilsen L. Psykiater: – Virkeligheten var mye tøffere enn de hadde forestilt seg. Dagens Medisin 5.9.2017.https://www.dagensmedisin.no/artikler/2017/09/05/flere-unge-leger-sliter/ Lest 13.3.2018.

13. Den norske legeforening. Legestatistikk. https://legeforeningen.no/Emner/Andre-emner/Legestatistikk/ Lest 13.3.2018.

14. Rosta J, Isaksson Rø K. Fører gode arbeidsvilkår til at leger får mange barn? Dagens Medisin 22.9.2016. https://www.dagensmedisin.no/artikler/2016/09/22/forer-gode-arbeidsvilkar-til-at-leger-far-flere-barn/ Lest 13.3.2018.

15. Dyrbye LN, Shanafelt TD, Balch CM et al. Relationship between work-home conflicts and burnout among American surgeons: a comparison by sex. Arch Surg 2011; 146: 211–7. [PubMed][CrossRef]

16. Fuss I, Nübling M, Hasselhorn HM et al. Working conditions and Work-Family Conflict in German hospital physicians: psychosocial and organisational predictors and consequences. BMC Public Health 2008; 8: 353. [PubMed][CrossRef]

17. Røvik JO, Tyssen R, Hem E et al. Job stress in young physicians with an emphasis on the work-home interface: a nine-year, nationwide and longitudinal study of its course and predictors. Ind Health 2007; 45: 662–71. [PubMed][CrossRef]

18. Tyssen R, Vaglum P, Gronvold NT et al. The impact of job stress and working conditions on mental health problems among junior house officers. A nationwide Norwegian prospective cohort study. Med Educ 2000; 34: 374–84. [PubMed][CrossRef]

19. Strand BH, Dalgard OS, Tambs K et al. Measuring the mental health status of the Norwegian population: a comparison of the instruments SCL-25, SCL-10, SCL-5 and MHI-5 (SF-36). Nord J Psychiatry 2003; 57: 113–8. [PubMed][CrossRef]

20. Solberg IB, Rø KI, Aasland O et al. The impact of change in a doctor's job position: a five-year cohort study of job satisfaction among Norwegian doctors. BMC Health Serv Res 2012; 12: 41. [PubMed][CrossRef]

21. Statistisk sentralburå. Utdanningsstatistikk. Barnehager 2015, endelige tall. https://www.ssb.no/utdanning/statistikker/barnehager/aar-endelige/2016-04-20#content Lest 13.3.2018.

22. Diderichsen S. It's just a job: a new generation of physicians dealing with career and work ideals. Doktoravhandling. Umeå: Umeå university, 2017.

23. Cunningham CT, Quan H, Hemmelgarn B et al. Exploring physician specialist response rates to web-based surveys. BMC Med Res Methodol 2015; 15: 32. [PubMed][CrossRef]

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