Do age, gender and marital status influence job strain development for general practitioner?

Giedrius Vanagas[1, 2], Susanna Bihari-Axelsson[2], Vitalija Vanagienė[1]
[1]Department of Preventive Medicine, Kaunas University of Medicine, Lithuania
[2]Nordic School of Public Health, Sweden

Key words: *strain, general practice, age, gender, marital status.*

Summary. *Background. General practice is one of the most stressful workplaces among health care workers and is characterized by higher rates of job strain than in reference population. We need to take into account that respondents are influenced by quite similar working conditions and health status differently. Thus this article aimed to review the subjective processes, which make general practitioners more vulnerable to the job strain.*

Methods. Computerized database Medline was searched. Search included data for 1983–2003. In this review data form many comparative cross-sectional studies found in this database were included. A data collection form was developed, prepared and filled up on reading each article.

Results. Collected studies highlighted that age, gender and marital status influence job strain development for general practitioner but were very controversial on how and whom they influence. We found that outcomes of job strain have higher impact for females than for males. We also found data that males have also high rates of job strain working in general practice. The age impact on job strain between females and males increases in older age groups. The rate of job strain is the highest among middle-aged general practitioners and depends on marital status. Married females have the worst health and are most vulnerable to job strain.

Conclusions. Magnitude of job strain varies depending on age, gender and marital status of general practitioner. The highest rates of job strain are mostly observed in married females, younger or older general practitioners. Sociodemographic factors contribute to this. The development of job strain, in some extent, can be explained within social context.

Introduction

For some years it has been argued that general practice became an increasingly stressful place to work (1, 2) because the attractions such as independence and flexibility involved in providing a service as a small business are now being undermined by the increasing demands and constraints (3–5). In addition, only 50% of general practitioners were satisfied with their work (5). Major causes of low job satisfaction and strain were: excessive paperwork, health reforms, bureaucratic interference (6), gender, job demands, hours worked, job control (5,6), job pressure, lack of organizational support (7), and dealing with difficult patients (3).

Appleton (8) showed the importance of understanding job strain and health as a problem of general practitioners in a study of 406 general practitioners. The prevalence of job strain was in 2 out of 3 respondents and 52% of respondents reported about their mental distresses. The results from different studies show that general practice is one of the most stressful workplaces among health care workers (9–11) and is characterized by higher rates of job strain than in reference population (12). Despite this we need to take into account the characteristics, which are specific to each occupation. Respondents are influenced by quite similar working conditions and health status differently (13–15). Thus, there is a need to evaluate the sociodemographic characteristics such as gender, age and marital status, which influence general practitioner's vulnerability to job strain.

This paper reviews literature on the sociodemographic characteristics affecting the job strain development in general practice. It addresses the following questions: is there any relationship between age, gender, marital status and the level of job strain among general practitioners and in which way?

Correspondence to G. Vanagas, Department of Preventive Medicine, Kaunas University of Medicine, Eivenių 4, Kaunas 50009, Lithuania. E-mail: vanagas@kmu.lt

Material and methods

Data collection. Computerized database Medline was searched October 10–20, 2003. It was limited to the period of 1983–2003. For search we used these MeSH headings: stress, psychological/epidemiology; stress/psychology; strain; family practice; general practice; marital status; work psychology; workload/psychology; female; male; physicians, family/psychology; and aged. No language restrictions were applied.

Articles selection. Review included comparative cross-sectional studies on general practice specific data. Search was limited to presence of full-text articles or abstracts available in English. The search combined keywords in the titles, abstracts or MeSH headings of 3 groups: first group composed "family practice" or "general practice" combined with second group headings such as "stress, psychological/epidemiology", "stress/psychology", "strain" and at least one from the third group characteristics: "female", "male", "marital status", "physicians, "family/psychology", "aged", "workload/psychology", or "work psychology".

The search resulted in 272 articles. Papers, which abstracts were not reporting on the subject, were excluded.

Data collection. A data collection form was created and filled up on reading each article. This form included information about the collection of data, sample size, measures reported and used statistical methods (Table).

Results

The analysis showed that physicians were at risk of stress. We have found studies, which quantified job strain effects on physicians. R. Grol et al (16) demonstrated poor clinical performance of physicians with negative feelings of tension, lack of time and frustration. The signs of job strain start firstly with a feeling of being exhausted, tense, pressured and guilty whilst being disorganized; later physician feels frustrated, is hostile, aggressive and quick to anger; he or she becomes increasingly depressed and bored. In the final stage of burnout a general practitioner may feel hopeless, thinks continually of escape routes, is often late for work, and is forgetful, withdrawn and drained of all interest in others (17, 18). Only few of general practitioners under stress continue to deteriorate until they reach the final stages of burnout or absolute fatigue. Most cope as best they are able to continue to keep up the acceptable standards of work whilst tol-

Table. **Measures reported by selected articles**

Author, year	Country	Sample size	Measures reported
M.Calnan et al, 2001	United Kingdom	81	Marital Status
S. Mc Glone et al, 2001	Australia	353	Gender
A. Dowell et al, 2000	New Zealand	391	Age
K. Appleton et al, 1998	United Kingdom	285	Age
K. Chan et al, 2000	Singapore	2570	Marital status
B. D. Newbury et al, 2001	United Kingdom	109	Gender
J. Firth Cozens, 1998	United Kingdom	131	Gender, marital status
S. Wilhelmsson et al, 2002	Sweden	566	Gender
R. Mesler et al, 2001	United States	784	Gender
J. Mirowsky et al, 1996	United States	362	Age, gender, marital status
H. Winefield et al, 1991	Australia	966	Age, gender
C. Cooper et al, 1989	United Kingdom	1817	Gender, marital status
R. Williams et al,1997	United States	152	Gender
G. Matt et al, 1993	Canada	187	Age, gender
S. Schieman et al, 2001	United States	1315	Age
A. Branthwait et al, 1988	United Kingdom	360	Age
A. Stirling et al, 2001	United Kingdom	21	Age
D. Cole et al, 2002	Canada	4043	Age, gender, marital status
J. Mira et al, 1994	United Kingdom	216	Marital status
H. May et al, 1983	United States	321	Marital status
H. May et al, 1985	United States	294	Marital status
M. Rennert et al, 1990	Israel	88	Marital status
D. Preston et al, 1995	United States	900	Age, gender, marital status

erating the physical and psychological effects of stress.

Individual responses to stressful situations can vary greatly and it has been shown that certain people are more likely to experience high levels of stress in their job than the others. Moreover, sociodemographic factors have been shown to attribute to stress, anxiety and job satisfaction (14,19).

Collected studies highlighted that age, gender and marital status influenced job strain development for general practitioner but were very controversial on how and whom they influenced.

Gender. Studies (19–23) demonstrated that the outcomes of job strain have higher impact for females than for males. However, we also found studies that males have high rates of job strain working in general practice (24).

Demands of job, patients expectations, interference with family life, constant interruptions at work and home are the most important sources of job strain for females (24). Williams (25) demonstrated that certain psychosocial factors increased risks of cardiovascular disease and were higher among females who were reporting higher levels of job strain. In this study, measures of job stress and psychosocial risk factors were gathered from 152 females. The results showed that perceptions of low control at work were correlated with increased levels of anxiety, anger and depression, reduced levels of social support and a preponderance of negative feelings between females. Canonical correlation showed that 70% of females were depressed, 70% were anxious and 83% reported on low decision capabilities. Other study found that 43 of 46 females were diagnosed with anxiety and/or depression; 30.4% of them reported about job stress and depression combination at work (21). Previous research also indicated that hostility, depression, anxiety and low levels of social support or social isolation could increase the risk for adverse health outcomes (25).

It is very important to understand how job strain affects females who are employed in the high demand and high profile positions. General practitioners qualify professional content as most positive and workload as most negative aspect at work. Females reported most negative factors at work: work characteristics, high workload, low job control and low social support (20).

Age. As a result of the age interaction, the total effect of distress and support is twice larger in the sample of old persons as in the sample of young persons (26). In this study using structural equation modeling and a longitudinal design the relationships among age, gender, friend support and psychological distress were examined among elderly persons over a 22-month interval. Such findings suggest that older males are especially vulnerable to psychological distress when they lose friend support (26). Similar findings in case of females were published in another study. This study showed that the gender gap in job strain grows in adulthood as women and men enter and undergo their unequal adult statuses. The age impact on strain between women and men increases successively in older age groups until retirement age (22).

General Social Survey data explored the relationships among age, age-linked personal and social qualities. Personal and social conditions influences the relationship between age and job strain. Depression decreases from young adulthood into midlife and then increases with age. Lower job control and widowhood contribute to lower old-age job strain. Fewer time demands and greater financial satisfaction lower job strain. Retired status contributes to the job strain (27).

It is shown that continuing problems mostly affect young general practitioners. Commonly experienced pressures at work were uncertainty and insecurity, isolation, poor relationships with other physicians, disillusion with the role of the general practitioner and awareness of changing demands (5, 6, 8, 28). Larger gap in job strain is among middle-aged than among young general practitioners and depends on marital status, house-work, child care and economic strains (24, 29).

Marital status. The theoretical framework delineates the relationships between work and family roles and psychological well-being (30). General practitioners reported high level of stress to be associated with work-family conflicts (19, 31–33), by which they ranked fourth among all professional groups (10). Using similar measurements it was found that those who reported that their family life, and family responsibilities interfered with their job performance were 1.87 times more affected by job strain.

The study of self-rated health and health-seeking behavior showed that 20% of physicians indicated that their work negatively affected their marital life (34). Findings suggested that out of four marital contexts studied (married men and married women and unmarried men and unmarried women), married women were most vulnerable to stress (35).

Marital status and perceived health status were also significant predictors of job strain. Divorced respondents were two times more swayed by job strain than those who were married or living as married (4). Married women were in the poorer health and had higher levels of job strain (35). Respondents who reported that their health status was much worse than a year ago were over 52 times more affected by job strain (4).

These findings suggest that social context and

marital status affect job strain development and health. The development of job strain, in some extent, can be explained within social context.

Discussion

Sociodemographic factors such as gender, age and marital status are depicted as independent predictors of vulnerability to job strain; however experience of stress does not necessarily result in pathological changes or damage. Job strain may be contained within the body's normal homeostatic limits. Many symptoms of job strain are uncomfortable and reduce the quality of life without causing irreversible damage to the individual. People vary as to the length of time and magnitude of job strain needed to cause ill health. But a concurrent illness or existing life events may have additive effects and can increase vulnerability to job strain or reduce the ability to cope with stress.

Analyzed articles displayed that interference of the job with family life was the most significant predictor of job strain for females whilst for males it was the joint stressor of practice administration and job demands. Stressed general practitioners might develop problems in their relationships with their partners and family, can be uncommunicative at home or work and more withdrawn or isolated (36).

The effects of job strain on practice may be seen as increased errors (37) in prescribing, disloyalty, increased staff turnover, limited team working, increased numbers of patients' complaints, poor time- keeping and sickness absence, resistance to change or the adoption of new technology or systems and disruption in the practice organization even resulting in a practice partnership split. The staff may be less motivated or effective. General practitioners may have little energy or capacity to listen or empathize with patients and communication between physicians and patients may be poor.

The issue of job strain is of utmost important to the public health community and working people. The job strain studies presented the idea that sociodemographic factors have an impact on job strain development. On the basis of these results, we concluded that age, gender and marital status are the determinants of job strain, which provide very controversial information. This can be due to different research methodologies and maybe some times not sufficient sample sizes used. Thus we need further research and maybe new more specific and validated research methodologies on conditions by which we quite differently respond to apparently similar working conditions and why one general practitioner is more vulnerable to job strain than another.

Conclusions

Age, gender and marital status influence job strain development for general practitioner but studies were very controversial on how and whom they influence. The magnitude of job strain depended on age, gender and marital status of general practitioner. Highest rates of job strain mostly are observed in married females, younger or older general practitioners. Sociodemographic factors contribute to this as sources of job strain, anxiety and low job satisfaction. Development of job strain, in some extent, can be explained within social context.

Ar bendrosios praktikos gydytojo amžius, lytis ir šeimos padėtis turi įtakos psichosocialiniam stresui darbe?

Giedrius Vanagas[1, 2], Susanna Bihari-Axelsson[2], Vitalija Vanagienė[1]
[1]Kauno medicinos universiteto Profilaktinės medicinos katedra, Lietuva
[2]Šiaurės Europos Visuomenės sveikatos mokykla, Švedija

Raktažodžiai: psichosocialinis stresas, bendroji gydytojo praktika, amžius, lytis, šeimos padėtis.

Santrauka. Bendrosios praktikos gydytojai, literatūros duomenimis, dažniau patiria psichosocialinį stresą darbe negu kitų specialybių gydytojai. Tačiau pastebėta, kad gydytojai, esant toms pačioms darbo sąlygoms ir sveikatos būklei, skirtingai reaguoja į stresines situacijas darbe. Šiame straipsnyje siekiame apžvelgti medicinos literatūrą ir paanalizuoti amžiaus, lyties ir šeimos padėties įtaką patiriamam stresui darbe.

Metodai. Literatūros paieška kompiuterizuotoje „Medline" duomenų bazėje. Analizei atrinkti straipsniai iš lyginamųjų momentinių tyrimų. Taigi analizė atlikta skaitant kiekvieną straipsnį ir pildant duomenų rinkimo protokolą.

Rezultatai. Analizės duomenimis, amžius, lytis ir šeimos padėtis turi įtakos bendrosios praktikos gydytojo psichosocialinio streso darbe kilmei. Analizuojamuose straipsniuose nurodoma, jog lytis neabejotinai turi įtakos streso darbe kilmei, tačiau duomenys labai prieštaringi: skirtingų studijų autoriai nurodo didesnį stresą tiek vyrams, tiek moterims. Taip pat nurodoma, kad ištekėjusios bendrosios praktikos gydytojos yra dažniau

veikiamos streso darbe. Taip pat nurodoma, jog abi lytys streso labiau veikiamos artėjant pensijiniam amžiui bei pirmaisiais darbo metais.

Išvados. Bendrosios praktikos gydytojai streso veikiami skirtingai ir priklausomai nuo amžiaus, lyties ir šeimos padėties. Labiausiai streso veikiamos ištekėjusios moterys, taip pat jauni ir vyresnio amžiaus bendrosios praktikos gydytojai.

Adresas susirašinėti: G. Vanagas, KMU Profilaktinės medicinos katedra, Eivenių 4, 50009 Kaunas
El. paštas: vanagas@kmu.lt

References

1. Forsythe M, Calnan M, Wall B. Doctors as patients. BMJ 1999;319:605-8.
2. Sutherland VJ, Cooper CL. Job stress, satisfaction, and mental health among general practitioners before and after introduction of new contract. BMJ 1992;304(6841):1545-8.
3. Calnan M, Wainwright D, Forsythe M, Wall B. General practice. All stressed up and nowhere to go? Health Serv J 2000;110(5709):28-9.
4. Calnan M, Wainwright D, Forsythe M, Wall B, Almond S. Mental health and stress in the workplace: the case of general practice in the UK. Soc Sci Med 2001;52(4):499-507.
5. McGlone SJ, Chenoweth IG. Job demands and control as predictors of occupational satisfaction in general practice. Med J Aust 2001;175(2):88-91.
6. Dowell AC, Hamilton S, McLeod DK. Job satisfaction, psychological morbidity and job stress among New Zealand general practitioners. N Z Med J 2000;113(1113):269-72.
7. Vagg PR, Spielberger CD. The Job Stress Survey: assessing perceived severity and frequency of occurrence of generic sources of stress in the workplace. J Occup Health Psychol 1999;4(3):288-92.
8. Appleton K, House A, Dowell A. A survey of job satisfaction, sources of stress and psychological symptoms among general practitioners in Leeds. Br J Gen Pract 1998;48(428):1059-63.
9. Rees DW, Cooper CL. Occupational stress in health service employees. Health Serv Manage Res 1990;3(3):163-72.
10. Chan KB, Lai G, Ko YC, Boey KW. Work stress among six professional groups: the Singapore experience. Soc Sci Med 2000;50(10):1415-32.
11. Trucco M, Valenzuela P, Trucco D. Occupational stress in health care personnel. Rev Med Chil 1999;127(12):1453-61.
12. McManus IC, Winder BC, Gordon D. Are UK doctors particularly stressed? Lancet 1999;354(9187):1358-9.
13. Theorell T. Stress at work and risk of myocardial infarction. Postgrad Med J 1986;62:791-5.
14. Newbury-Birch D, Kamali F. Psychological stress, anxiety, depression, job satisfaction, and personality characteristics in preregistration house officers. Postgrad Med J 2001;77:109-11.
15. Eakin JM, MacEachen E. Health and the social relations of work: a study of the health-related experiences of employees in small workplaces. Sociol Health Illness 1998;20(6):896-914.
16. Grol R, Mokkink H, Smits A, Van Eijk J, Beek M, Mesker P, et al. Work satisfaction of general practitioners and the quality of patient care. Fam Pract 1985;2(3):128-35.
17. Chambers R, Davies M. What stress in primary care. Ref Type: Report. London: Royal College of General Practitioners; 1999.
18. Cox T. Stress research and stress management: putting theory to work. Ref Type: Report. Suffolk: Health and Safety Executive; 1993.
19. Firth-Cozens J. Individual and organizational predictors of depression in general practitioners. Br J Gen Pract 1998; 48(435):1647-51.
20. Wilhelmsson S, Foldevi M, Akerlind I, Faresjo T. Unfavourable working conditions for female GPs. A comparison between Swedish General practitioners and district nurses. Scand J Prim Health Care 2002;20(2):74-8.
21. Mesler R, Capobianco M. Psychosocial factors associated with job stress. Stress News 2001;13:4.
22. Mirowsky J. Age and the gender gap in depression. J Health Soc Behav 1996;37(4):362-80.
23. Winefield HR, Anstey TJ. Job stress in general practice: practitioner age, sex and attitudes as predictors. Fam Pract 1991; 8(2):140-4.
24. Cooper CL, Rout U, Faragher B. Mental health, job satisfaction, and job stress among general practitioners. BMJ 1989; 298(6670):366-70.
25. Williams RB, Barefoot JC, Blumenthal JA, Helms MJ. Psychosocial correlates of job strain in a sample of working women. Arch Gen Psych 1997;54(6):543-8.
26. Matt GE, Dean A. Social support from friends and psychological distress among elderly persons: moderator effects of age. J Health Soc Behav 1993;34(3):187-200.
27. Schieman S, Van Gundy K, Taylor J. Status, role, and resource explanations for age patterns in psychological distress. J Health Soc Behav 2001;42(1):80-96.
28. Branthwaite A, Ross A. Satisfaction and job stress in general practice. Fam Pract 1988;5(2):83-93.
29. Stirling AM, Wilson P, McConnachie A. Deprivation, psychological distress, and consultation length in general practice. Br J Gen Pract 2001;51(467):456-60.
30. Cole DC, Selahadin I, Shannon HS, Scott FE, Eyles J. Work and life stressors and psychological distress in the Canadian working population: a structural equation modelling approach to analysis of the 1994 National Population Health Survey. Chronic Dis Canada 2002;23(3):91-9.
31. Mira JJ, Vitaller J., Buil JA, Aranaz J, Rodriguez-Marin J. Job satisfaction and stress among general physicians in the public health system. Aten Primaria 1994;14(10):1135-40.
32. May HJ, Revicki DA, Jones JG. Professional stress and the practicing family physician. South Med J 1983;76(10):1273-6.
33. May HJ, Revicki DA. Professional stress among family physicians. J Fam Pract 1985;20(2):165-71.
34. Rennert M, Hagoel L, Epstein L, Shifroni G. The care of family physicians and their families: a study of health and help-seeking behaviour. Fam Pract 1990;7(2):96-9.
35. Preston DB. Marital status, gender roles, stress, and health in the elderly. Health Care Women Int 1995;16(2):149-65.
36. Rout U, Rout JK. Job satisfaction, mental health and job stress among general practitioners before and after the new contract. A comparative study. Fam Pract 1994;11(3):300-6.
37. Chambers R, George V, McNeill A, Campbell I. Health at work in the general practice. Br J Gen Pract 1998;48(433): 1501-4.

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