Women physicians and stress

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ABSTRACT

Most women physicians enjoy better than average physical health and lead satisfying and productive lives. However, higher than average rates of depression, anxiety, marital problems, and substance abuse have been reported by some, but not all, authors. This quantitative survey of 196 women physicians and qualitative focus groups with 48 other women physicians was conducted to determine perceptions of their health, stress, satisfaction, knowledge, and abuse rates in medical practice. Eight specialties plus family practice physicians participated. The average age was 44.1 years (SD 8.8, range 23-77). Seventy-four percent of women physicians were married, with children. Specialists and family physicians were similar in all demographic characteristics except that family physicians were more significantly likely to be divorced, separated, or widowed ($p \leq 0.01$). Specialists perceived their personal physical health to be better than that of family doctors ($p \leq 0.05$), and family physicians rated their medical knowledge better than that of specialists ($p \leq 0.0001$). Women physicians over age 50 or with children over age 19 reported the best mental health ($p \leq 0.0001$ and 0.003, respectively). Overall, 49% of women physicians reported usually having high levels of stress, 44% felt mentally tired, and 17% took antidepressant drugs. Seventy-three percent reported verbal abuse at work (71% in the last year), and 33% reported physical assault at work (11% in the last year). Focus groups identified three major sources of stress: high expectations, multiple roles, and work environment. These results are discussed and compared with the literature. Both personal and systemic strategies are required to solve the problems identified. Women physicians can facilitate the adoption of some of these strategies by sharing information about successes, challenges, and solutions.

INTRODUCTION

Most women physicians enjoy better than average physical health and lead satisfying and productive lives.[1–7] However, some authors have reported elevated rates of depression, anxiety, marital problems, and higher suicide and addiction rates among female physicians compared to other professionals,[1] although others have not.[2] Medicine is an inherently stressful profession,[3] with long hours, pressing clinical problems, ethical dilemmas, difficult patients, and conflicting demands. However, the reasons for the possible increased rates of psychological distress remain unclear, with predisposing personality factors and the stress of practice being recurrent themes.[4–12] This study was designed to better understand the perceptions of health and stress in practicing women physicians in Canada at the close of the 20th century.

MATERIALS AND METHODS

In early 1999, a mail survey was conducted among Canadian women physicians. Two methods of convenience sampling were employed to obtain nearly equal numbers of family physicians and specialists. Approximately 400 surveys were distributed in the newsletter of the Federation of Medical Women of Canada, and to increase the number of specialists, surveys were mailed to 67 participants at the Canadian Medical Association Women's Leadership Conference and to 100 women physicians at the University Health Network, Toronto. No reminders were sent to any of the groups.

In addition to the surveys, six semistructured focus groups were conducted by two coinvestigators to obtain richer detail about women physicians' perceptions of the sources of stress and coping strategies. Forty-eight women physicians participated in this qualitative study, with 8 in each focus group. Focus group participants were different from surveyed physicians and were chosen from a range of specialties and family practice.

Questionnaire

The questionnaire asked for information about sociodemographic characteristics, physical and mental health, medical knowledge, verbal abuse, and physical assault. The sociodemographic section included information about age, marital status, number of children and their ages, number of years in practice, and specialty. The health section included questions on self-perceived physical heath (compared with other people of the same sex and age), level of stress, mental tiredness, and mental health (during the last month), along with questions on smoking, use of antidepressant medication, and time off work. Self-perceived physical health, mental tiredness, and level of stress were rated on 5-point Likert scales. Mental health was measured by the 5-item Mental Health Inventory (MHI).[13] The MHI measured feelings of "calmness and peace," "downhearted and blue," "nervousness," "happiness," and "down in dumps" during the last month on a 6-point scale. The section on verbal abuse and physical assault included questions on ever being verbally abused and ever being physically assaulted in the course of medical training or work and by whom. A 5-point scale was used to measure perception of professional knowledge and ability as compared with other physicians of the same sex and age.

Data analysis

Quantitative methods. The data were analyzed using Statistical Package for the Social Sciences (SPSS), version 9. The descriptive statistics included the prevalence of selected characteristics for the study population. Tests of significance included chi-square for cross-tabulation and *t* test for continuous variables. Specialists and family physicians (dependent variable) were compared for their sociodemographics, self-perceived physical health, stress level, mental health, verbal abuse and physical assault status, and professional knowledge and ability.

Qualitative methods. Semistructured focus group interviewing involved deductive questions, based on survey information, and inductive questions, which followed up on insights that emerged during interviews. Qualitative data were analyzed on the basis of a naturalistic approach. The accuracy of qualitative data interpretation was determined by member check, debriefing, and triangulation techniques. The member check was done by asking focus group participants to verify the investigator's interpretations at the end of each focus group. Themes that emerged after each focus group session were reviewed by two coinvestigators during debriefing. Triangulation was done by comparing focus group information, survey data, and literature review.

RESULTS

One hundred ninety-six women physicians responded to the written survey: 96 family physicians, 95 specialists, and five women who didn't state their specialty. The overall response rate was approximately 34.6%, and respondents from the three recruitment groups had similar sociodemographic characteristics, except that participants from the Federation of Medical Women of Canada were predominantly family physicians and those from the Canadian Medical Association Women's Leadership Conference and University Health Network were predominantly specialists. The participants were overwhelm-

ingly Caucasian and came from a wide range of geographic locations, including every province in Canada. Eight medical specialties plus family practice physicians were included. Specialty types included internal medicine (26.3%), psychiatry (20%), anesthesia (13.7%), surgery (11.6%), obstetrics and gynecology (11.6%), radiation and radiation oncology (8.4%), and pediatrics (7.4%). The mean age of all women physician respondents was 44.1 years (SD 8.8, range 23–77), and they had been in practice for a mean of 16 years (SD 9.3). Seventy-four percent were married, and 74% had children, with a mean of 2 children (range 0–6). There were no differences between the family practitioners and specialists in age, number of years in practice, number or age of children, or mental health indices. However, specialists were more likely than family practitioners to be married, and family practitioners were more likely to be divorced, separated, or widowed ($p \leq 0.01$).

Eighty-nine percent of the sample rated their physical health as good or excellent, 67% usually enjoyed themselves, and 33% were usually calm or peaceful. There was a difference in perceived health, with specialists (especially internal medicine physicians) perceiving their physical health to be better than that of family doctors ($p \leq 0.001$). Physicians over the age of 50 were significantly more likely to report being calm and peaceful on the MHI ($p \leq 0.0001$) as compared with physicians less than 50 years of age. However, 49% of all women physicians usually had high levels of stress, 44% were usually mentally tired, 16% usually felt downhearted and blue, and 17% were currently taking antidepressant medication. Physicians who took antidepressants had a higher level of mental stress on the MHI than did physicians who did not take antidepressants ($p \leq 0.003$). Although 92% of all women doctors rated their professional knowledge and ability either as "good" or "excellent," family physicians self-rated their knowledge and ability more highly than did specialists ($p \leq 0.0001$).

There was significant interaction between perceived mental health and age of children. Women with children over the age of 19 year were more calm and peaceful than women with children less than 19 and women with no children ($p \leq 0.003$ and 0.001, respectively).

Seventy-three percent of all women physicians reported having ever been verbally abused at work, 71% within the last year. Family physicians reported a trend toward more verbal abuse than specialists ($p \leq 0.06$), and when family physicians and psychiatrists (the two specialists who reported most verbal abuse) were compared with all other specialists, they were significantly more likely to be verbally abused ($p \leq 0.01$). One hundred forty-three women physicians reported verbal abuse by patients (53%), other healthcare providers or personnel (38%), patients' families or friends (23%), the person to whom they report (22%), and strangers (4%). Thirty-three percent of women physicians had ever been physically assaulted at work, with 11% in the last year. Sixty-three physically assaulted physicians reported that they were most likely to be assaulted by patients (97%), patients' families or friends (6%), other healthcare personnel or providers (6%), the person to whom they report (2%), and strangers (2%). (Respondents were able to report more than one perpetrator of verbal abuse and physical assault.) Abused women physicians were significantly less likely to enjoy practice ($p \leq 0.03$) and more likely to be depressed ($p \leq 0.04$) and to have time off work in the last year ($p \leq 0.03$).

Three major stress themes emerged from the focus groups: high expectations, multiple roles, and work environment. The high expectations theme was manifested by numerous expressions of perfectionist attitudes toward professional and personal activities. However, several physicians felt that for women to succeed, especially in academic medicine, they had to outperform male colleagues. The theme of multiple role problems predominated in all focus group discussions, especially among physicians with young children, who felt torn between competing demands at home and work that left no time for personal activities or rest. The theme of work environment included discussions about the inflexibility of work and on-call schedules, inadequate work supports, inequalities in promotion and reimbursement, and problems with invisibility, harassment, verbal abuse, and assaults at work. Several physicians mentioned the special problems associated with the rapidly changing healthcare environment that focuses on financial rather than patient outcomes or professional rewards.

DISCUSSION

The majority of these women physician participants had been in medical practice for over a

decade, and over two thirds of them reported that they usually enjoyed their work. In keeping with other studies, they enjoyed good physical and emotional health,[4,5,12] although almost half reported high levels of stress,[14] only a third were usually calm and peaceful, and one fifth were currently using antidepressant medication. The stresses reported were sometimes specific to the medical profession, others to middle age, and some to gender, time, and location of practice.[15]

The overall response rate of 34.6% raises questions about selection bias and the generalizability of results to all women physicians. However, the sample was reassuringly similar in geographic area, specialty, and age distribution to the Canadian national physician database. As Canada has a nationalized health insurance plan, these results may not be generalizable to other jurisdictions. Although the low response rate is a limitation, the strength of this study is its use of quantitative methodology, standardized questionnaires, such as the MHI, and qualitative focus groups to capture some of the detail about women doctors' lives.

High expectations by self and others figured prominently in focus groups of women physicians experiencing stress. Many mentioned their "need to be everything to everybody" and commented on having too many things to do, feeling overwhelmed, and having difficulty saying "no." However, our participants and other investigators pointed out that some of the personality traits that get doctors into medicine in the first place, such as a strong sense of responsibility, delayed gratification, obsessive compulsive traits, and personal sacrifice, can also contribute to these difficulties.[16,17] A number of authors have emphasized the importance of clarifying values, prioritizing activities, delegating responsibilities and tasks, and learning to say "no."[16–20] Covey[18] has pointed out that it is easy to say "no" when there is a deeper "yes" burning inside and that doing more things faster is no substitute for doing the right things. Part of delegating, however, means letting go of some control and accepting that other people may do things differently. Perfectionism may handicap some physicians, as discussed by focus group participants, but it is also true that women physicians often have unrealistic expectations placed on them by their colleagues. Several women reported being expected to fulfil the usual obligations of work in addition to being the departmental housewife, who arranged social gatherings, bought presents, and nurtured bruised egos. Focus group participants emphasized that it is helpful if women physicians learn to set limits on what they expect from themselves and the expectations that others attempt to place on them at work, socially, and at home.

Focus groups revealed that multiple roles created the most stress, particularly when the women physicians had young children. The difficulty of finding good child care and home help is legendary among professional women.[19–21] Several participants pointed out that medical education is inadequate preparation for the combination of work, home, marriage, and children. Women physicians with young children must constantly juggle home and work responsibilities, and disruptions, such as a child's illness, can throw even the best planned schedule into chaos. Personal time becomes nonexistent, and health behaviors, such as exercise, rest and a healthy diet, often suffer.[15] There are often few opportunities for professionally enhancing part-time work when children are young, and both parental leaves and part-time practice with young children are frequently not seen as compatible with an academic career.[2] An additional complication is that our participants were often married to men physicians who worked long hours, resulting in women physicians frequently having longer combined working weeks than their male counterparts. Marital problems seem to have been more problematic in family doctors than in specialists in our survey, a finding that requires replication and further study if confirmed. Midlife and older women physicians in our survey and focus groups, as in other studies, often reported practical difficulties and stress in caring for parents, spouses, and other family members in failing health.[22] However, it is reassuring that physicians with children over age 19 were the healthiest of all, adding evidence to the platitude, "It really does get easier as your children get older!"

Focus group participants repeatedly returned to the theme that the work environment for many women physicians remains problematic and has too few supports. The majority of women in our study reported working in difficult environments. It was thought that equity policies should require that women are fairly recruited, supported, acknowledged, reimbursed, and promoted. For women with young children, adequate parental leave, flexible hours, on-site child care, and tax relief for home help were considered to be desirable. Many women physicians reported having far too many things to do with few

resources: high levels of responsibility and low levels of authority. This it the classic paradigm for stress and burnout (emotional exhaustion), in which resources are insufficient to meet the harm, threat, or challenge of the environment.[16,23,24] Several studies have identified work life factors found to be important to physicians' satisfaction, including autonomy, patient relationships, reimbursement, professional relationships, resources, status, control, and participation.[17,28] Many of these factors are equally, if not more, important to residents and younger colleagues.[26–28] Excessive demands have been reported to lead to gradual depletion of energy, coping mechanisms, and internal resources, which may result in a negative impact on motivation, attitude, and behavior. These, in turn, easily progress to discouragement, low self-esteem, decreased career ambition, and ultimately depression, anxiety, or substance abuse.[16,23,24] The findings that 16% of our sample rated themselves in the depressed range on the MHI and 17% reported taking antidepressants raise the importance of future research to determine if this is a unique problem for women physicians or for all working women with young children. Apart from the personal cost in attitude, happiness, and health, depression may also cause negative consequences to role performance and the quality of medical care provided by physicians.[24,25]

The high rates of verbal abuse and physical assault experienced by our women physicians at work is a concern and, as in other studies, was associated with increased stress, depression, and time off work.[2,8,19–22] Systemic changes, including appropriate safety measures, were considered to be necessary to ensure that work environments were conducive to women achieving their best personal and professional results. Policies should mandate that staff, including supervisors, are appropriate and respectful in their interpersonal relations. Appropriate patient behavior should be encouraged and expected, and abusive patients with nonurgent medical problems should be asked to leave if they are mentally competent to control their behavior.

In keeping with other physicians, women physicians in our study mentioned the rapidly changing healthcare environment, including consumerism, increasing technology, the expanding knowledge base for patients and doctors, healthcare restructuring, and malpractice and third party payers as additional sources of stress.[17] Some thought that some patients expected perfect results every time and treated physicians "like a public utility." Physicians thought they had lost control of their work environment, practice, and autonomy and, accordingly, were less able to structure their work life to accommodate their home responsibilities.

Special stressors that may exist for unique physicians and practices were reported by some focus group participants and in the literature. Physicians practicing in rural, remote, and underserviced areas have special challenges in separating professional and personal life,[17] and physicians from other countries, especially those from visible minorities, may encounter additional stress because of racism, acculturation difficulties, and family or community commitments.

CONCLUSIONS

It is always easier to describe problems than to find solutions. However, most participants agreed that better balance between professional and personal needs can be facilitated by careful appraisal of situations, time management skills, finding adequate supports, delegating appropriately, taking care of the physical self through exercise, nutrition, recreation, and adequate rest, and developing self-nurturing skills. They also believed that embracing change, confiding in friends and family, and seeking out mentoring and treatment are sometimes helpful. The findings that 16% of women doctors self-rated themselves as depressed on the MHI and 17% were currently taking antidepressant medication require further study of the causes of physician depression and its optimal management. In addition to personal initiatives, however, it is clear that systemic changes, including equity policies, child care tax relief, and institutional policies against discriminatory or abusive behavior, are needed. Equally importantly, women physicians can begin to document, research, and talk to each other about the joys and stresses of practice and share successes, challenges, and solutions.

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