

Female Physicians and the Work-Family Conflict

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ABSTRACT: There has been a dramatic increase in the number of female physicians in all fields and specializations of medicine, but this increase has not resulted in a redistribution of domestic tasks and responsibilities. Reviewing the literature of the last two decades (April 1994 to April 2014) on how female physicians cope with the challenge of balancing their family and professional lives for the duration of their professional careers revealed that they suffer from the work-family conflict more than other professionals and that it has a more negative effect on women than on men. Women physicians consider work-family balance significantly when making career choices. These considerations affect their career success, their productivity as faculty members, their marital life, and parenthood. Having a supportive spouse at home and a facilitating mentor at work are important for a positive work-family balance among female physicians. Special career-supporting measures, such as flexible work schedules and expanded support for childcare over the course of work and when taking part in academic activities, are critical for female physicians.

IMAJ 2016; 18: 261–266

KEY WORDS: female physicians, work-family conflict (WFC), work-life balance (WLB), physicians' careers

"All happy families are alike; each unhappy family is unhappy in its own way"

Leo Tolstoy, *Anna Karenina*

To start with, some definitions are in order. The first is work-family conflict (WFC), a form of inter-role conflict where the role pressures from work and family domains are mutually incompatible. This definition implies a bidirectional relationship. The second, family-work conflict (FWC), arises when family responsibilities impede work activities. The third, work-home conflict (WHC), occurs when work-related demands interfere with home responsibilities. Finally, work-life balance (WLB) reflects the fit between personal life and work life [1].

In recent years there has been increasing interest in WFC among physicians, which is reflected in the growing number

of publications on the subject. In this paper we review the medical literature on how female physicians, in different medical specializations, cope with the challenge of balancing their family and professional lives for the duration of their professional careers.

We surveyed the PubMed Database for papers published over the 20 year period April 1994 to April 2014 about WLB and WFC among physicians. We focused on papers that dealt with female physicians and gender differences, using the search terms "female physicians," "work-family conflict," "work-life conflict" and "work-family balance." Twenty-five relevant articles were identified. Most were in English, one was in French, one in German and one in Norwegian. Both qualitative and quantitative studies were included.

WORK-LIFE BALANCE AMONG PHYSICIANS

Compared with other workers, physicians are much more likely to be dissatisfied with WLB [2-4]. The highest rates of dissatisfaction are seen among physicians who work at the front line of access to care (family medicine, general internal medicine, emergency medicine) [4]. In one study WLB was found to be the main stressor [5], in another the main stressor in predicting depression [6], and in a third it was positively associated with emotional exhaustion and burnout among physicians [7]. In a qualitative study that assessed the attitudes of Belgian physicians to their clinical practice, several areas of satisfaction were cited, but these were largely outnumbered by their complaints. A major complaint was the lack of family and private life [8].

There is evidence for an association between gender and the perception of WFC. The underlying assumption is that women are more negatively affected by the way work interferes with family life [9,10]. WFC was associated with an increased risk for poor self-rated health among women [11].

The medical profession has undergone a significant demographic change, with a dramatic increase in the number of women applying to medical school and practicing medicine.

Women physicians experience more work-home conflict than their male counterparts

The proportion of female physicians has reached close to 40% in the majority of Western countries [12]; however, this increase has not resulted in a redistribution of domestic tasks and responsibilities [13]. In a survey conducted among American female physicians, achieving WLB was a significant concern for 91% of the respondents [14]. In a

sample of French hospital-based physicians, WFC was the major factor associated with burnout: odds ratio (OR) 5.09. One study found that 41.3% of female physicians stated that their profession was an obstacle to having children [15]. Women physicians were more likely to report that they never or rarely get enough sleep ($P < 0.05$), never or rarely wake up refreshed ($P < 0.05$), and were less likely to live with children up to 12 years of age ($P < 0.001$) [16]. A qualitative study showed that a better WLB and part-time work were common aspirations among men and women alike, particularly in relation to parenthood [16].

WLB AND WOMEN PHYSICIANS' CAREERS

Graduates from medical school, one year after qualification, were surveyed in a study conducted in the UK. They were asked about their current choice for specialization, and any choices that had been seriously considered but not pursued. In the latter case they were asked the reasons. General practice was the career preference for 18% of the male graduates and 32% of the females. The surgical specializations were the career preference for 32% of the men and 12% of the women. Issues related to WLB were the single most common reason, particularly for women, for not pursuing surgical specializations, emergency medicine, hospital-based medical specializations, pediatrics, and obstetrics and gynecology [17]. Another study, which evaluated the reasons for choosing or rejecting psychiatry or "other medical specializations" among newly qualified doctors in the UK over a 12 year period, found that 33% of the women who chose psychiatry rated "domestic circumstances" as having influenced their choice, compared to 18% of the men ($P < 0.05$) [18]. Among female doctors who chose general practice one year after qualification, 77% rated "hours/working conditions" as having influenced their choice a great deal, and "domestic circumstances" were rated as very important by 51% of those planning to become general practitioners. At 3 and 5 years after graduation, "hours/working conditions" was still rated as the most influential factor in choosing a career in general practice, and this factor had a greater effect on women than on men ($P < 0.001$) [19]. A cross-sectional study involving U.S. physicians from all fields of specialization

assessed satisfaction with career choice and WLB at different career stages. Physicians in mid-career (11–20 years of experience) had the lowest level of satisfaction with their choice of specialization and their WLB. They were the most likely to plan to stop practicing medicine over the next 24 months, for reasons other than retirement. The challenges of mid-career were seen in both men and women and across specializations and practice types [20]. Another study, addressing the impact of gender and parenthood on physicians' careers 7 years after graduation from medical school, found that female physicians, especially those with children, had lower rates of employment and lower scores in career success and support than male physicians. In terms of WLB, female doctors are less career oriented and more inclined to consider part-time work or to continue their professional career after they take a break to raise a family. Compared with their male colleagues, female physicians were less advanced in their specialization qualification, less prone to choose prestigious surgical fields, less likely to have a mentor, more likely to work in a small hospital or private practice, less likely to aspire to senior hospital or academic positions, and more likely to consider part-time work. Any

negative impact on career path and advancement was exacerbated by parenthood [21]. A summary of studies on the effect of WLB on the careers of female physicians is shown in Table 1.

Work-life conflict influences the private life and personal health of female physicians

WLB AND WOMEN IN ACADEMIC MEDICINE

Women comprise a small proportion of clinical academicians, and those who do follow an academic career tend to work at lower grades than men [22]. In a qualitative interview study of female physicians in the USA [23], which was later extended to female physicians in Canada, Pakistan, Mexico and Sweden [22], insights were gained as to how, when and why physicians choose an academic career in medicine. In this international sample, female physicians who were active in academic medicine often claimed that WLB carried considerable weight in their choice of academic path. For example, one female physician stated: "I became active in academic medicine because it meant that I would not have to be on night call" [22]. Women remain under-represented in the senior ranks of academic medicine.

Table 1. Results of studies on the effect of WLB on physicians' careers

Author, year [ref]	Year	Subjects	Main findings
Goldacre et al. [17]	2012	9155 graduates from UK medical schools	WLB was the most common reason, more for F, for not pursuing surgical and hospital-based specializations
Goldacre et al. [18]	2013	33,974 newly qualified doctors, UK	More F than M who chose psychiatry rated "domestic circumstances" as having influenced their choice
Lambert et al. [19]	2012	20,250 newly qualified doctors, UK	More F rated "hours/working conditions" as having influenced their choice as general practitioners
Dyrbye et al. [20]	2013	A large sample of U.S. physicians	Physicians in middle career, both F and M, had the lowest satisfaction with their WLB
Buddeberg-Fischer et al. [21]	2010	579 physicians, Switzerland	F are less career oriented

WLB = work-life balance, F = female, M = male

Table 2. Results of studies on the effect of WLB on women in academic medicine

Author [ref]	Year	Subjects	Main findings
Borges et al. [22]	2013	7 international F physicians	F comprise a small proportion of clinical academicians and work at lower grades than M
Brown et al. [24]	2003	Focus groups from Duke University Medical Center	F rated the quality of their personal and work lives as more important than other traditional markers of career success
Strong et al. [25]	2013	100 faculty clinician-researchers and 28 of their mentors, USA	Mentorship and flexibility in timing and location of work promote the satisfaction in WLB
Eloy et al. [26]	2013	9952 academic physicians, USA	F were under-represented at the level of professor. M and F have equivalent rates of research productivity
Reed et al. [27]	2011	25 F physicians and 50 M controls at Mayo Clinic	F's publication rates increase and exceed those of M in the latter stages of careers, yet F hold fewer leadership positions
Levine et al. [28]	2011	20 F physicians who left academic medicine, USA	WLB is a key factor associated with a decision to leave academic medicine

WLB = work-life balance, F = female, M = male

The results of a study from Duke University Medical Center that investigated the gender climate among academic faculty staff showed that women placed a higher value on the quality of their personal and work lives and rated these as more important than other traditional markers of career success, such as the stature of their institution or earning potential [24]. In order to gain a more nuanced understanding of WLB issues from the perspective of a large and diverse group of faculty clinician-researchers and their mentors, qualitative semi-structured interviews were conducted. Several WLB-related issues were raised, including the challenge and importance of WLB for contemporary physician-researchers and how the gender role and spousal dynamics make these issues more challenging for women [25]. Two recent studies evaluated research productivity among male and female academic physicians at different career stages [26,27]. Women published fewer articles than men and their h-index was lower throughout their careers.

But, interestingly, female faculty had a level of productivity that equaled and even surpassed that of their male colleagues in the latter stages of their careers (beyond 20–25 years) [26,27]. One potential explanation for this finding is that female physicians have greater family responsibilities at earlier stages of their careers [26]. Women leave academic medicine at somewhat higher rates than men [28]. Semi-structured interviews of 20 female physicians who left academic medicine were conducted to explore their reasons for opting out of academic careers. A lack of role models for combining career and family responsibilities, frustrations with research, WLB, and the institutional environment (biased in favor of male faculty) emerged as key factors associated with their decision to leave academic medicine [28]. The results of studies on the effect of WLB on women in academic medicine are summarized in Table 2.

WLB AND FEMALE SURGEONS

Surgical specializations are more time demanding and exhausting than other fields of medical specialization and women account for a minority in these fields. Work-home conflict

among surgeons was associated with a moderate or higher likelihood of planning to reduce clinical work hours (OR 1.76) and leave the current practice within the next 24 months for a reason other than retirement (OR 1.706) [29]. A study from the U.S. evaluated associations between WHC and burnout among American surgeons. No differences were observed between women and men in hours worked or the number of nights on call per week. Female surgeons were more likely than male surgeons to believe that child-rearing had slowed their career progress (57.3% vs. 20.2%, *P* < 0.001), to experience a conflict with their spouse/partner's career (52.6% vs. 41.2%, *P* < 0.001), and to experience a WHC in the past 3 weeks (62.2% vs. 48.5%, *P* < 0.001). More female than male surgeons experienced burnout (43.3% vs. 39.0%, *P* = 0.01) and depressive symptoms (33.0% vs. 29.5%, *P* = 0.02). Factors independently associated with burnout, on multivariate analysis, included a recent incident of WHC, having resolved

the most recent WHC in favor of work, and hours worked per week [30]. Over 75% of U.S. plastic surgeons were satisfied with their careers. However, only half were satisfied with their time balance between career and personal responsibilities. The main factor independently associated with diminished satisfaction with WLB was female gender (OR 0.63) [31]. In a study of WLB among German gynecologists, men reported more overall work time and overtime work than women, but a similar percentage (47%) of female and male gynecologists reported satisfaction with their current WLB and 70% of the female gynecologists answered that work life and private life were equally important to them (similar to male physicians).

Work affected the private life of male and female physicians in a similar way. At least 37% of men and women neglected their partner and their children very often due to their work load [32]. An interesting study compared how female surgeons manage their WLB in three environmental and cultural settings: Japan, the USA, and Hong Kong. Japanese female surgeons reported that work was their number one priority, while female surgeons in the U.S. and Hong Kong reported that their number one prior-

Table 3. Results of studies on WLB among female surgeons

Author [ref]	Year	Subjects	Main findings
Dyrbye et al. [29]	2012	7197 surgeons, USA	WHC was associated with planning to reduce work hours and leave their practice
Dyrbye et al. [30]	2011	1043 F and 6815 M surgeons, USA	F were more likely to experience WHC, to believe that child-rearing had slowed their career advancement
Streu et al. [31]	2011	708 plastic surgeons, USA	F surgeons were significantly less satisfied with their WLB
Hancke et al. [32]	2014	775 F and 261 M gynecologists, Germany	Work affected private life of M and F in a similar way
Kawase et al. [33]	2013	822 F surgeons from Japan, USA and Hong Kong	Japanese F surgeons think that work is the number one priority, whereas U.S. and Hong Kong-China respondents think the number one priority is home life

WHC = work-home conflict, F = female, M = male

Table 4. Results of studies on the effect of WLB on the married lives of female physicians

Author [ref]	Date	Subjects	Main findings
Warde et al. [34]	1999	415 married physicians with children, USA	Low level of WFC was associated with high marital and parental satisfaction
Dyrbye et al. [35]	2014	7288 physicians and 891 of their partners, USA	WHC is common among physicians and their employed partners and is associated with burnout
Osterlie W et al. [36]	2003	1594 M and 512 F Norwegian physicians	F reported more WFC, more among those aged 35–44 and those reporting long working hours
Schrager et al. [37]	2007	129 F in academic family medicine, who are in dual physician families, USA	F prioritized WLB and having supportive partners and mentors as most important to their success
Dyrbye et al. [38]	2010	7905 surgeons, USA	Surgeons in dual physician relationships more often than others experienced a WHC

WHC = work-home conflict, WFC = work-family conflict, F = female, M = male

ity was home life. The level of work satisfaction was generally high among female surgeons in all countries, but 76.1% of U.S. female surgeons thought that men were treated more favorably than women at work, whereas 51.6% of Japanese female surgeons thought that men were treated more favorably at home than women and they placed more importance on the role of women in the family. All female surgeons were in favor of expanding support for child-rearing or nursing care during working hours, promoting a flexible work schedule, and changing the older conventional perceptions on gender role [33]. The results of studies on WLB among female surgeons are summarized in Table 3.

WLB AND FEMALE PHYSICIANS' MARITAL LIFE

The professional life of physicians is characterized by long working days and pressure to achieve greater efficiency. A survey that compared female and male physicians from Southern California assessed personal and professional factors associated with marital and parental satisfaction: 45% of female physicians and 63% of male physicians reported high levels of marital satisfaction. Two factors were associated with high marital satisfaction: a supportive spouse (OR 10.37) and low level of role conflict (OR 0.61). Approximately two-thirds of both male and female physicians reported at least moderate levels of parental satisfaction. The major factors associated with parental satisfaction were a supportive spouse (OR 2.24), a low level of role conflict (OR 0.35), marriage to a spouse who worked in a profession (OR 2.14), and marriage to a spouse who was a homemaker (OR 2.33) [34]. WHC within the previous 3 weeks was commonly experienced by physicians and their working partners (44.3%

and 55.7% respectively) [34]. Longer work hours for physicians and their working partners were independently associated with WHC [35,36]. Physicians and partners who had experienced a recent WHC were more likely to have symptoms of burnout (47.1% vs. 26.6% for physicians with and without WHC, respectively: 42.4% vs. 23.8% for partners with and without WHC, respectively, both $P < 0.0001$) [34]. A study from Norway found that physicians from different specializations were generally satisfied with the degree of support provided by their spouses [36]. Female physicians reported more emotional support, while male physicians perceived or reported more practical support. The strongest positive association between social support and spouse's profession was found for spouses who were physicians themselves [36]. According to a survey of female physicians in academic family medicine, most women reported that having a physician partner was beneficial and the benefits included support and having an understanding person at home. Yet, scheduling conflicts and childcare responsibilities contributed to the need to make job-related compromises [37]. Women prioritized WLB and having supportive partners and mentors as the most important factors in their success as academic family physicians [37]. In contrast, among surgeons, physicians married or partnered to another physician were more likely to have depressive symptoms and low mental quality of life than surgeons whose domestic partner stayed at home (all $P < 0.05$). Surgeons whose domestic partner stayed at home appeared to be more satisfied with their career ($P = 0.0006$) [38]. The results of studies on the effect of WLB on the married lives of female physicians are summarized in Table 4.

CONCLUSIONS

There has been a dramatic increase in the number of female physicians, but this increase has not resulted in a redistribution of domestic tasks and responsibilities. Female physicians weigh WLB-related issues when choosing their field of specialization, including employment rates, specialization qualification requirements and chances for career success. Mid-career physicians (11–20 years of experience) are more vulnerable to WFC. Women in academic medicine tend to work at lower grades and to be less productive than men throughout their careers. However, female faculty members are more productive, even surpassing their male colleagues in the later stages of their career, because of the decreased burden of family responsibilities at this career stage. In surgical specializations there are no differences between women and men in work hours, but women are more dissatisfied with WLB and experience WHC. Supportive spouses at home and mentors at work are important for maintaining WLB among female physicians.

It is the subjective opinion of the investigators that women who choose medical careers have unique personality characteristics such as curiosity, determination to achieve goals, high motivation, and a desire to help others. Thus, despite all the obstacles and difficulties described here and the price of an impaired WLB, the achievements of female physicians in many fields of medicine are remarkable. In addition, from the personal perspective of the female author (Y.T-G.) of this paper, the pleasure and satisfaction derived from research are an important resource for clinician researchers. However, special career-support measures – including flexible work schedules, expansion of childcare services during working hours, and mentoring in academic medicine – would make this important but complex task easier for female physicians and help them to achieve a more positive work-life balance.

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