

Childbearing and Child Care in Surgery

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Hypothesis: The responsibility for childbearing and child care has a major effect on general surgical residency and subsequent surgical practice.

Methods: A survey of all graduates from a university general surgical training program between 1989 and 2000.

Results: Twenty-seven women and 44 men completed general surgical training at our university during the period, and 42 (59%) responded to our survey. The age at completion of the residency was 34.0 ± 2.2 years for men and 33.9 ± 2.8 years for women. During residency, 64% (14/22) of the men and 15% (3/20) of the women had children. At the time of the survey, 21 (95%) of the men and 8 (40%) of the women had children. Most residents (24 [57%] of 42) relied on their spouse for child care. During surgical practice, 18 (43%) indicated that they rely on their spouse; 19 (45%) use day care, home care, or both; and (8%) of 26 are unsatisfied with their current child care arrangement. During training, 38% (5/13) of men and 67% (2/3) of women took time off for maternity leave, paternity leave, or child care. Two of 3 surgeons would like to have had more time off during residency; most men (70%, or 7 of 10) recommended a leave of 1 to 3 months, and all women preferred a 3-month maternity or child care leave of absence. During surgi-

cal practice, only 12% (2/17) of men but 64% (7/11) of women have taken time off for either childbearing or child care. Half of the respondents (21/42) have a formal leave of absence policy at work, 52% (11/21) of which are paid leave programs. Although the workweek of our practicing graduates is 69 ± 16 hours for men and 64 ± 12 hours for women, 62% (26/42) spend more than 20 hours per week parenting. More than 80% (27/32) would consider a part-time surgical practice for more parenting involvement; one third of the responders suggested that 30 hours a week constitutes a reasonable part-time practice, one third preferred fewer than 30 hours, and one third favored more than 30 hours per week. Data are presented as mean \pm SD.

Conclusions: Childbearing and child care may have an enormous impact on one's decision to pursue a career in surgery. To attract and retain the best candidates for future surgeons, formal policies on the availability of child care services in the residency program and the workplace should be studied and implemented. Furthermore, national studies are needed to define appropriate, acceptable workweeks for part-time or flexible practices and the duration of leaves of absence for childbearing or child care.

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AT THIS TIME, about one half of the graduating medical students in the US are women. As one reviews the list of graduates at a commencement ceremony, one notes that relatively few new physicians are destined for a surgical career. Surgical chairs, residency program directors, and the profession as a whole want to attract the best and brightest graduates to careers in surgery. Unfortunately, more medical students are choosing "controllable lifestyle" specialties instead.^{1,2} In addition, a large number of physicians of both sexes who had chosen training in internal medicine, pediatrics, family practice, or surgery are switching to the more control-

lable lifestyle specialties.² In 1999, 9 US university-based general surgery residency programs were unable to fill their categorical positions, and more than 70 university-affiliated programs failed to fill their general surgery preliminary slots.³

See Invited Critique at end of article

Despite these observations, a survey of the graduates of our general surgery training program from the last 12 years reaffirmed that the major reasons they chose a surgical career were the overt intellectual and technical challenge and the reward of directly intervening in disease, aspirations shared equally by both sexes. This

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MATERIALS AND METHODS

A 36-item questionnaire was distributed to 71 graduates, 27 women and 44 men, who completed our training program between 1989 and 2000. It was designed to elicit data on demographics, educational backgrounds, current practice profiles, marital status, number of children, and child care modalities. We also asked questions about their opinions regarding parental leave, child care facilities at work, and flexible work schedules to accommodate child care. Data are presented as mean \pm SD, when appropriate. Differences between groups were determined by *t* tests.

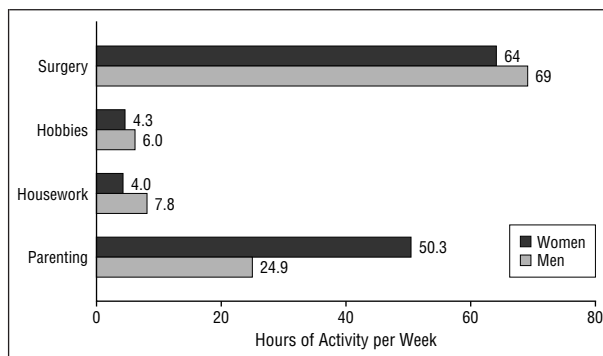
women and men either do not consider lifestyle issues or consider them equally when selecting a career specialty.⁴⁻⁶ Nevertheless, lifestyle issues still surfaced as a concern. Included in these lifestyle issues were the difficulty in balancing childbearing and child care with an intense professional career, both of which, irrespective of attitude, more directly affect women.

Childbearing and child care not only influence career choice but also directly affect surgical practice. Almost 75% of women physicians are married, and most (85%) of them have children.⁷ Almost all (93%) of the spouses of these women work outside the home.⁷ Therefore, it seems essential and practical to acknowledge the special needs of women surgeons and to incorporate them into workable solutions to balance career and family responsibility. Moreover, the conflict between family and career during long years of training and early career development affects women and men.^{2,7-9} Both would likely welcome efforts to improve the balance of life and career issues.

From 1989 to 2000, 27 (38%) of our 71 general surgery residency graduates were women. We conducted a survey among all 71 graduates on issues of childbearing, child care, maternity leave, and paternity leave during residency and surgical practice. We also surveyed our graduates on their working and parenting hours, their view of possible part-time practice or flexible working hours to accommodate child care needs, and their overall experience with balancing career and family.

RESULTS

Twenty (74%) of 27 women and 22 (50%) of 44 men responded to our survey, for a total response rate of 59% (42/71). The age at residency completion was 33.9 ± 2.8 years for women and 34.0 ± 2.2 years for men. At the time of the survey, 14 (70%) of our responding female graduates were married, 4 (20%) were single, and 2 (10%) were divorced. Nineteen (86%) of our responding male graduates were married, 2 (9%) were single, and 1 (5%) was separated. The age at first marriage was 28.7 ± 6.9 years for women and 27.0 ± 3.2 years for men. Twenty-nine percent (4/14) of women were married to another physician, as were 11% (2/19) of men. Although all married



A week in the life of a surgeon.

women were married to another professional who works outside the house, 26% (5/19) of men listed their spouse as a homemaker.

During residency training, 64% (14/22) of the men and 15% (3/20) of the women had children. At that time, 11 (58%) relied on their spouse for child care, 10 of 15 men and 1 of 4 women. During working hours, 21% (4/19) of our residents had in-home child care, 11% (2/19) used child care facilities, and 5% (1/19) depended on family members for child care. During evenings and weekends, 21% (4/19) took care of their children themselves, 74% (14/19) relied on their spouse, and 5% (1/19) had help from family members. As practicing surgeons, 95% (21/22) of the men and 40% (8/20) of the women had children, with 52% (15/29) relying on their spouse, 28% (8/29) using day care, and 21% (6/29) depending on in-home care for their child care needs. During evenings and weekends, 38% (11/29) are responsible for caring for their children, 55% (16/29) have their spouse as a primary caregiver, and 7% (2/29) rely on in-home care. Eight percent (2/26) expressed dissatisfaction with their current child care arrangements. Seventy-nine percent (33/42) recommended that employers provide child care facilities at work, and some stressed the importance of an institutional policy for time off and for accommodating flexible schedules for child care.

During training, 38% (5/13) of our male residents who had children took time off for paternity leave or child care (range, 3 days to 3 weeks). Overall, 45% (10/22) of them would like to have had more time off, but the length of time off they favored differed considerably among them (range, 2 weeks to 3 months), with a mean of 6.4 ± 3.7 weeks. Two of our women residents reported having had a child during their residency; one took a month off and the other, 3 months. During surgical practice, 12% (2/17) of men and 64% (7/11) of women have taken time off for childbearing or child care. Men generally took off 2 weeks, while women took a mean 8.2 ± 3 weeks. Fifty percent (21/42) of the practicing surgeons have a formal maternity or paternity leave program at work, and among them, 52% (11/21) have paid maternity or paternity leave programs. The mean paid leave was 7.8 ± 6.9 weeks, and the mean unpaid leave was 9.8 ± 7.5 weeks.

The mean current workweek of all of our practicing graduates was 69 ± 16 hours for men and 64 ± 12 hours for women. Sixty-two percent (26/42) of them spend more than 20 hours per week parenting (**Figure**). Most women

with children spend at least 40 hours per week parenting, with a mean of 50.3 ± 60.2 hours. Men with children reported a mean of 24.9 ± 14.2 hours parenting. Men claimed spending 7.8 ± 1.4 hours a week performing housework, while women spent a mean of 4.0 ± 3.4 hours. Men and women spent similar amounts of time each week on personal hobbies, 6.0 ± 3.3 hours for men and 4.3 ± 2.7 hours for women.

More than 80% (34/42) of the respondents would consider a part-time surgical practice to accommodate child care needs. When asked how many hours per week constitute a reasonable part-time practice, one third (14/42) of the respondents favored 30 hours, one third thought more than 30 hours, and one third preferred fewer than 30 hours. Men suggested 27.3 ± 6.5 hours as the minimum for a reasonable part-time practice; women recommended 30.0 ± 6.5 hours.

COMMENT

Despite an increased presence of women in medicine during the last few decades, the number of women entering the surgical profession in the US has not increased at a similar rate. According to the Resident Tracking Database of the Association of American Medical Colleges, women comprise only 20% in each year of surgical training.¹ In 1995 and 1996, only 15.1% and 15.8%, respectively, of the surgical residency training program graduates were women.¹⁰ In 2000, the percentage of practicing women surgeons in the US was approximately 10%.¹¹ In its 1999 report, the American College of Surgeons Advisory Council for General Surgery³ reported that surgical training programs have failed to confront the issue of the pregnant resident. As women are recruited into the surgical professions, deep-rooted concerns regarding lifestyle and parenting issues surface. Moreover, our survey and a review of the literature reveal that these issues are not sex-specific. To recruit and retain the best candidates for careers in surgery and to ensure career satisfaction, the surgical professions must address these issues.

There are clear sex differences in the social structure surrounding surgeons. Although 26% (5/19) of the married male graduates listed their wife as a homemaker, all of our married female surgeons had a spouse working in the same or another profession. This sex difference in demographics is similar to national findings.⁷ Most of our graduates, both men and women, are married, suggesting that having a spouse is a generally desired life choice. However, fewer than one half of our women graduates have children, in contrast to most of the men, another sex difference. It is reasonable to assume that this difference is by choice. The finding raises the questions of whether more of these women graduates would choose to have children if childbearing and child care were facilitated, and would it affect the choice of women considering surgery as a career? Although maternity and childbirth take time away from careers, acknowledging that they are controllable, predictable, and finite is a useful first step. Corporate America has begun to focus on lifestyle issues, particularly issues most germane to women. Companies are advised to make radical changes in the treatment of women and in family sup-

port.¹² Despite their proven competence and potential in the best business schools, women's careers, energies, and ambitions may be blunted if childbearing and child care issues are ignored. The business world has begun to support female employees by acknowledging the fundamental differences in life responsibilities between men and women and by allowing flexibility for women (and men) when they need it.¹²

Women physicians and other women still bear the brunt of child care and parenting responsibilities.¹³ Child care consumes nearly as much time as professional work does for our working women surgeons. Our women graduates spend a mean of 50 hours a week parenting, in addition to a 64-hour workweek. Although our male graduates also work as hard, a mean of 69 hours a week, they spend only half the time of their female counterparts in parenting, a mean of 25 hours a week, another major sex difference. Most of those surveyed support the concept of a child care facility at work and the possibility of flexible schedules to accommodate child care. Often, parents are confronted with an ill caregiver or an ill child. Mayo Clinic, Rochester, Minn, has dealt with this issue by developing a sick-child day care facility that "keeps working parents working" when their children are mildly ill and protects workplace productivity.¹⁴ On-site child care has been successfully implemented for many businesses. It is logical to provide such services if the employer is willing to accept that devoted employees are usually also devoted parents. For surgeons to come to work early or stay late, such services are helpful. By providing a dependable child care facility at work, career satisfaction could be greatly enhanced.

The medical and business worlds have often developed policies in conjunction with one another, including parenting issues. Parental leave policies and support systems for new parents employed by children's hospitals were compared with benefits offered by *Fortune* 500 companies.¹⁵ Ninety-four (80%) children's hospitals and 82 (69%) geographically matched *Fortune* 500 companies responded to the survey. No difference in duration of maternity leave or paternity leave was found. Seventy-seven percent of the companies classified maternity leave as short-term disability, and 50% of the hospitals classified it as sick time. Classifying maternity leave as short-term disability generally provides better benefits to employees with shorter duration of employment. Companies provided more financial support for adoption services than did hospitals; hospitals provided more on-site day care (69% vs 42%) and better support systems for breastfeeding mothers (49% vs 24%).¹⁵

The mean age for the first marriage of our graduates was 27 years for men and 29 years for women. Most of our female graduates had children after their surgical training, consistent with the fact that college-educated women tend to postpone having their first child until they are 31 years old.¹² Only 2 women reported childbirth during residency training; one took off a month and the other, 3 months. Ten men and 3 women indicated their desire to have longer time off. The women are consistent with what they desire, actually taking off 3 months during their current surgical practice for maternity leave. However, men took a mean of only 2 weeks off once they were in

practice, but they would like to have had about 6 weeks of paternity leave during residency training. Economic factors undoubtedly play a role. The experience is similar in other countries. A Danish longitudinal study¹⁶ of 360 new parents discovered that 92% of new mothers used all 24 weeks allotted for maternity leave. One fourth of the mothers resumed work 24 weeks after delivery, whereas 44% of the mothers extended their maternity leave with vacation time. Although 46% of the new fathers took leave at the time of delivery, only 3% of them took part in full paternity leave.¹⁶ For even the most committed women professionals, leaving a new child to return to work is painful. The Council of Teaching Hospitals of the Association of American Medical Colleges¹⁷ reported that 77% of responding facilities have policies for maternity or parental leave. Forty-one percent offered dedicated paid maternity leave (a mean of 42 days), 25% of respondents offered paternity leave, and 15% offered adoption leave.

Potential solutions for parents who have significant child care responsibilities include flextime, part-time, and shared positions. Implications of creating part-time positions are the need to train more physicians, increased burden on administrative services, potential reduction in continuity of care, longer time in clinical "handover," and longer postgraduate training. Although 81% (34/42) of our graduates would consider a part-time surgical practice for accommodation of parenting, there was no consensus as to how many hours constitute a reasonable part-time position, and none of our graduates were in part-time practice at the time of our survey.

Will part-time practice affect a surgeon's potential for advancement or promotion? In a survey on institutional policies regarding tenure, promotions, and benefits for part-time faculty at US medical schools, 56% of 104 responding medical schools reported having written policies about tenure, promotion, or benefits for part-time faculty.¹⁸ Of 95 medical schools with tenure systems, 25 allowed part-time faculty to obtain tenure and 70 allowed an extension in time to tenure. The reasons to slow the tenure clock included medical leave, maternity leave, paternity leave, and other leaves of absence.¹⁸ The concept of permitting parents to slow down with impunity and then re-enter the competition for advancement or tenure, if they choose, would encourage and legitimize the growing desire of men in the younger generations to be more active in parenting. Such policies would assist the new mother who must spend time with a young child.

American surgical educators and leaders should break the silence on these issues, study them in depth, and formulate clear and comprehensive policies on maternity leave and child care. To do so, one must be candid that the current practice of surgery is not friendly to women or to families. The desire for increased parental leave expressed in our survey may signify a wish for a significant change in lifestyle that may ultimately conflict with the individual's economic requirements. Plus, it may be the most difficult to accommodate in training and in practice. A comprehensive policy on maternity and paternity leave could require profound changes in the

structure of surgery residency training and the practice of surgery, especially in academic institutions. It is best that we begin to study the actual needs first. Open and frank discussions on the perceived needs and the fundamental differences between the sexes, strategy for work coverage, improvement of the working environment, and acknowledgment of the needs of working parents should ensue. Providing child care arrangements to permit early return to the workforce potentially improves quality of life for the surgeon-parent and the child.

Childbearing and child care issues may have an enormous impact on one's decision to pursue a career in surgery. To attract and retain the best candidates for future surgeons, formal policies on the availability of child care services in the residency program and in the workplace should be studied and implemented. Furthermore, national studies are needed to define appropriate, acceptable workweeks for part-time or flexible practices and duration of leaves of absence for childbearing or child care. Given the remarkable growth and vitality of surgery, the expanding and invigorating role of women in the field, and the favorable evolution of quality of life in this country, our need to deal with the impact of childbearing and child care on a surgical career is simply a natural progression in the history of this profession.

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DISCUSSION

Amilu S. Rothhammer, MD, Colorado Springs, Colo: There has been a reported increase in voluntary termination of pregnancy in female surgery residents compared with their male classmate spouses. The highest rate of induced abortions was among surgical residents as compared to residents in other specialties. Most of these residents were unmarried. Perhaps these women had anticipated the problems and sacrifices to come and were unprepared for the responsibility of caring for a child alone. Pregnancy may be the easiest part of planning a family. Data have shown that spontaneous abortions are low and successful pregnancies are high in spite of the long hours women surgeons spend on their feet. With long waiting lists for many day care centers, few of which offer overnight services, female residents must find alternative, and often expensive, modes of child care, if they are to continue to develop their careers. They also must deal with feelings of guilt and exclusion from significant milestones in their child's development. Surveys have shown that 24% of women residents found pregnancy and child care miserable and 52% only tolerable and would not do it again during a residency. I agree with the authors that modifications in schedules and rotations are necessary if the mother and baby are going to be well. The surgeon herself must assume responsibility for careful family planning so that her fellow residents or partners won't have to unexpectedly assume her share of work. Careful family planning; good communications; flexibility from the program director, faculty, and practice partners; and support from coworkers—and participation and support from the spouse—are the ingredients of successful childbearing and childrearing for a woman surgeon. With the increasing number of women surgeons, it is important to recognize and deal with these issues before they become insurmountable. Women have about 25 years of professional life after their children are in school. If they have taken time to raise their children, they may find it difficult to re-enter surgery and will have missed many opportunities for career advancement. The challenge is to adjust to the reality of women's lives so that they can become better mothers and surgeons.

I have 2 questions. Did your study indicate the number of women residents leaving surgery and entering less demanding specialties when they were beginning their family life? The second question is did your study include the number of either elective or spontaneous abortions? I want to congratulate the authors in presenting this very timely subject.

A. Rahim Moossa, MD, San Diego, Calif: Margaret Thatcher once remarked that "if you want something said, ask a man; if you want something done, ask a woman." Thus, it is appropriate that Dr Mayer has done all the work, and I am asked to discuss it.

The authors have addressed the important issue of childbearing and child care in surgery. This is only a facet of a broader topic, namely, the role of women in surgery. Our president, Dr Rothhammer, in her presidential address, gave us a very excellent historical survey of the trials and tribulations of women who have aspired to be surgeons. We all would agree that fe-

male residents and the female faculty are as talented and as hard-working as their male counterparts. As you have heard, nationally about 50% of medical school graduates are women, and yet only about 15% to 20% of our surgical residents are female. A recent British survey in the Royal College of Surgeons of England *Bulletin* of medical school graduates suggests that women reject surgical careers because of a perception of "male bias," "negative attitudes," "old boys network," and "lack of a role model" from a predominantly domineering male faculty. Thus, I think we all can take the lead and encourage women into a surgical career by trying to alter this perception.

Since women have a wide spectrum of special needs, the issue is how to individualize for each person. We have 2 issues: (1) How do we get women into surgery and (2) How do we encourage their development without them having to make extra sacrifices in their lifestyle? What we have found is that the single female surgeon usually has little or no trouble, at least that they tell me, and they are often as focused, as determined, and as competitive as their male counterparts. The married woman, however, has a different juggling act, depending on her family circumstances, her husband's profession, her ambitions and aspirations, and her surgical specialty. At UCSD, we have addressed the gender issue on an individual basis. Residents are allowed a year off working in the laboratory on full pay throughout their pregnancy. Leave of absence up to 3 months is allowed for all female residents and faculty, with full pay.

As our adaptation process to include women in our midst evolves, other issues have developed and I want Dr Mayer's advice on the following scenario. One of our women faculty members devotes her entire workload to elective breast surgery. She has no emergency call schedule and she doesn't work weekends. She never attends the Saturday morning teaching conferences. She took 2 periods of 2 months as pregnancy leave on full pay. She cannot start her operating schedule before 9:00 because of family commitments. My problem is several male faculty members now feel that she is getting preferential treatment. How do you resolve this issue?

Finally, I want to ask you 2 other questions: First, a 59% response rate for your questionnaire is a bit low. What do you think happened to the 41%? And last, do you believe that we should have a lengthening of the residency program for individual women with special needs?

Sheryl G. Gabram, MD, Chicago, Ill: I have 3 questions. One echoes the one regarding the response rate. Do you have any demographics on the nonresponders specifically and how that might have affected your results? I really think it speaks to our unwillingness, especially in the young grads, to address this issue, and that's a concern. Second, a few weeks ago at an ACS course on mentoring, we learned that the corporations are going into the elementary schools at the fifth grade level specifically to entice the best and the brightest into business and engineering. We need to do that as surgeons, too. Do you have programs where you invite high schoolers, undergraduates, and first- and second-year medical students to shadow your surgeons? If you do, are you talking about some of these child care issues and how to deal with them? And last, have you changed at all your orientation sessions for new residents or your medical student interviewee sessions? Have you introduced some of the issues of child care and childbearing, and please give us some advice, because all of us struggle with this in our surgical programs.

C. Edward Hartford, MD, Denver, Colo: I want to compliment Dr Mayer for bringing this subject to our attention and to President Rothhammer for her remarks regarding these issues. As a program director, I am most interested in the subset of women who had pregnancy during residency, and I believe there were 3 individuals in your data set. This raises important issues because of the fact that pregnancies among women

in our residency program have produced enormous stress, not only on the individual but also on their resident-mates, as well as the spouse. I think that every indication is that, because of the number of women entering medicine in general, gradually the number of women who enter surgical training will increase, and I think this is to be encouraged. I wonder if Dr Mayer could comment on advice on this subject for women entering surgical training, and also who is responsible for the development of the policy that is recommended in the conclusions of the paper?

Bruce L. Gewertz, MD, Chicago: I think this is an extremely important issue that all of us grapple with both in private practice and academic settings. I appreciate the opportunity to comment, and also I think that it is terrific that the Western Surgical selected this very excellent paper. Have you had an opportunity to look at the literature in other fields, whether investment banking or lawyering, and looked at some of the same quality-of-life issues for women in those very high-pressure positions? Second, I wonder if at least one of your conclusions regarding time spent in child care is adversely impacted by a peculiarity, as well as the small sample size. It's been shown in other studies that men tend to bond with their children at a different rate and spend more time later in life. It might be useful to revisit this with other male graduates who are older, when their relationship with their children is more fully developed, rather than in these immediate years after training. Finally, I would agree with the concept that we all have to look very carefully on the quality of life that women residents enjoy during their training. I think we probably need to look at the adverse effects on men every bit as carefully, since divorce, substance abuse, and dropping out of the profession are unfortunately at a higher rate than most of us would prefer. This undoubtedly has to do with the stresses on men, as well as women.

James G. Tyburski, MD, Detroit, Mich: I congratulate the authors on bringing up a problem that as a program director I find vexing. One comment is we actually have had some male home-housekeepers in Detroit, so it's not unheard of. I figure we're a little more progressive in Michigan. However, we could not agree more that a formal policy is good. My question, though, as a program director, is how do we reconcile time off? We have had several people with multiple pregnancies, and you start getting into 2 or 3 months off in several years. How do we reconcile that with the RRC requirements that 48 weeks make up an academic year? Do these people get extra time? Do we add extra rotations?

J. Craig Collins, MD, Los Angeles, Calif: As another program director, I am proud to report that almost 50% of our categorical residents are women, one of whom just delivered a healthy baby boy in her fifth year. So we're very supportive of the growing role of women in surgery. But we're cognizant of the fact that there is a 25% attrition rate between the first day of internship and graduation from residency. That's not specific to one gender. Add to that the issue of time off, as others have mentioned, and I would simply request some advice from Dr Goodnight and Dr Mayer as to how we can reconcile that with the RRC's requirement that we never have any "extra" categorical residents in our programs. We're allowed to have an overage of no more than 10% in the first 3 PGY years. That doesn't even begin to address the 25% attrition, much less the special needs of people who may have family obligations.

Dr Goodnight: Obviously, we appreciate the many discussions and the questions. It's also clear that, in keeping with Dr Moossa's observation, Dr Mayer and the other women in the group should be here answering this if we want to get something done, but I do have something to say as a male.

The study obviously focused on the rather critical period about 10 years after residency, when people have to establish

a practice or establish an academic career. Both males and females are establishing a family, and one has to deal with these child care issues, which in this particular survey are the younger children. We would certainly agree that there is a need to enlarge the study. We think it is quite reasonable to address this issue, probably a need to bring a sociologist or a psychologist in and broaden the questioning. Essentially, if we're advocating anything, it's that we, individually and as a profession, generate accepted policies and practices that are nonjudgmental and nondiscriminatory regarding issues we've discussed—things that work. Certainly, the address that Dr Rothhammer presented yesterday was truly inspiring relative to the role of women and the changing role in this profession. I would have to say we have no knowledge of terminated pregnancies in this group. That would obviously be a question to add to future surveys. We certainly agree with careful family planning.

The number of women leaving residency in our survey over the 12-year period was 4. They all entered other specialties. Regarding Dr Moossa's comment about the breast surgeon and the schedule she has, as a fellow chair in UC, all I can say is, Babs, that's why they pay you the big bucks. You're going to have to work that one out. Several asked about the nonrespondents. We don't have a good profile of the nonrespondents, and obviously, in any survey like this, we will need to go back and try to pick that up and see if that skewed the data.

About lengthening the residency program, we may indeed have to do that. I don't think we're prepared to offer any pat solutions at this point but simply say that all of these things should be uniform and nondiscriminatory.

Dr Gabram once again asked about nonrespondents; we don't have those data. As far as corporations, there is a great deal of activity actually going on in corporate America; at least it's certainly being written about. Hopefully, the women are actually doing something about it, as Dr Moossa observed. The *Fortune* 500 companies have an ongoing program and are being pressed to address these issues much in the way it was described here. We have held 2 high school programs in the last 2 years. There is actually an NIH funded program, and we are working to participate in that.

Dr Hartford asked for advice regarding residents getting pregnant. I think, once again, it's an issue we need to bring out in the open. We actually don't include such a discussion in our orientation session at this point. There are 38% women in our training program, and as the chair I am learning more and more things from this group. They have their own network and actually give considerable advice to each other on this issue, but no, we haven't addressed it programmatically in the way that I think we need to.

Who is responsible for studying these issues? I think we are. Obviously, as we bring more talented women into the profession, I suspect they will be the group that provides the solution, but I think we've got to be the ones to study it. We can certainly draw excellent information from corporations and so forth, but we've got to address it.

Dr Gewertz asked a similar question and also addressed that the issue of parenting in this study relates to young children. Parenting older children is, once again, an important area to address. We agree with enlarging the scope of the study.

Dr Tyburski asked how do we reconcile the issues, in particular, with the RRC. We represent the leadership in surgery, and I think these are issues we must very directly address, but we certainly have no useful pat answers at this time.

Dr Collins asked similar questions on dealing with the issues. Again, I would say we are without pat answers. The attrition of women? This has been surveyed nationally. Dr Jonasson has actually shown that the attrition overall of women both in training and in this profession has been very low. So, I simply say that I think it is reasonable that we take a hard look

at ourselves. We appreciate the Western giving us the opportunity to present these data. We do plan to expand this study, expand the database, and get additional help from real pros in this arena. We simply echo what Dr Rothhammer said yesterday—

that, given the remarkable growth in this profession, the expanding and invigorating role of women coming into the profession, it's only a natural progression that we should begin to study these issues.

Invited Critique

As a woman who has completed 7 years of general surgical training and had 2 children during this time, I appreciate this informative study by Dr Mayer. Even though the numbers are small and limited to one institution, this information is an important foundation for further research and discussion. The comparisons made with Fortune 500 companies and the survey thereof are critical to the content of the article and are to be commended. It is clear from her article that most of the women physicians studied chose to have children after completing residency training. However, men and women physicians found that postponing childbearing until residency completion did not change their choice of child care or increase their satisfaction with child care arrangements. Eighty percent of surgeons were dissatisfied with their child care arrangements. This dissatisfaction may not be because of substandard child care, but rather because these surgeons desire to spend more time with their children. While having child care facilities at the work place would allow parents to spend more time with their children during work hours, it is only an initial step in addressing child care issues for female surgeons. The need to nurse my child would require 20 to 40 minutes, 3 times a day, during a 10- or 11-hour day. This may be permissible to a Fortune 500 business person; however, clinics do not stop and operations cannot be put on hold for child care. Extending maternity leave (perhaps to 24 weeks as the Danish people have done) well into infancy may address this child care issue better than providing child care at the hospital.

Flex-time, or a "sick-child day care facility," or "classifying maternity leave as short-term disability," or "modifying the tenure tract to encourage male parenting" are helpful but not complete solutions to the problem. I agree with Dr Mayer that by "providing a dependable child care facility at work, career satisfaction could be greatly enhanced," but the issues are broader. Peer respect is a component of career satisfaction, and a pregnant surgeon is often not perceived as a colleague. By increasing the number of female surgeons and making it "socially acceptable" for male surgeons with children to be active participants in child care, perhaps this misperception will change. What I share with my male colleagues is a love and passion for surgery that cannot be matched by any other activity or profession. My commitment to surgery is not changed by my womanhood or my children.

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