Marital and Parental Satisfaction of Married Physicians with Children

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OBJECTIVE: To evaluate personal and professional factors associated with marital and parental satisfaction of physicians.

STUDY DESIGN: Cross-sectional study.

PARTICIPANTS: A survey was sent to equal numbers of licensed male and female physicians in a Southern California county. Of 964 delivered questionnaires, 656 (68%) were returned completed. Our sample includes 415 currently married physicians with children, 64% male and 36% female.

MEASUREMENTS AND MAIN RESULTS: Ratings of marital and parental satisfaction were measured on a 5-point Likert scale, 5 being extremely satisfied. Prevalence of work and home life factors was also evaluated. The mean score for marital satisfaction was 3.92 (range 1.75–5.0). Approximately half of the physicians reported high levels of marital satisfaction (63% of male physicians and 45% of female physicians). The gender difference disappeared after adjusting for age differences. Two factors were associated with high marital satisfaction: a supportive spouse (odds ratio [OR] 10.37; 95% confidence interval [CI] 2.66, 40.08) and role conflict (OR 0.61; 95% CI 0.42, 0.88). The mean score for parental satisfaction was 3.43 (range 1.0–5.0), and 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; 95% CI 1.32, 3.80), role conflict (OR 0.35; 95% CI 0.23, 0.53), salaried practice setting (OR 2.14; 95% CI 1.21, 3.81), marriage to a spouse working in a profession (OR 2.14; 95% CI 1.21, 3.81), and marriage to a spouse working as a homemaker (OR 2.33; 95% CI 1.20, 4.56). Number of hours worked was not found to be related to either satisfaction score, but rather to an intervening variable, role conflict.

CONCLUSIONS: For physicians with children, our study indicates that minimizing the level of role conflict and having a supportive spouse are associated with higher levels of marital and parental satisfaction. Working in salaried positions and marriage to a spouse who is either working in a profession or who is a stay-at-home parent are also related to high parental satisfaction.

KEY WORDS: physicians; psychology; stress; family characteristics; marriage.

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Physicians can lead very full lives combining their roles as caregiver, spouse, and parent. Multiple roles provide the opportunity to be personally satisfied in many aspects of their lives simultaneously, and difficulty in one area can be compensated by success in another. Although there is rarely time for boredom, the demanding nature of a physician's work is bound to influence family life and may lead to strained family relationships or altered career paths.^{1,2} In the case of married physicians with children, the situation may be exacerbated by a working spouse with a second set of career demands and the need for both parents to be actively involved in childrearing.

Little is written about the professional and personal factors that may influence the relationships of physicians with their spouse and children. To our knowledge, no studies have evaluated physicians' relationships with their children. Divorce rates may indicate the quality of marital relationships. Among physicians, divorce occurs less often than it does among nonphysicians,^{3,4} and female physicians may be more at risk of divorce than male physicians.^{3–5} However, physicians may stay in unhappy marriages for other reasons, such as financial need or social status.⁶ Marital satisfaction scales have been used to explore the quality of physicians' marriages, but the relation between family life and work is complicated and difficult to study.^{6–10} A small survey of family practice residents found a correlation between marital satisfaction and psychological stressors.⁷ Two studies of physicians focused on sources of conflict in medical marriages.^{6,8} A more recent study evaluated a broader range of predictors of marital satisfaction, but was hampered by a low response rate.⁹

In this cross-sectional study of married Southern California physicians with children, our purpose was to ascertain which personal and professional factors are associated with marital and parental satisfaction. This information will be useful to medical students and young physicians choosing career paths, to physicians grappling with how best to combine work and family, and to health services administrators as they seek to improve productivity and retain qualified physicians.

METHODS

In 1988 a questionnaire was mailed to all female physicians (706) and an equal number of systematically selected male physicians (every sixth) from a Southern California county, as they were listed in a roster of licensed

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All conclusions in this paper are those of the authors and do not necessarily reflect the views of Permanente Medical Group, UCLA, the Stein/Opppenheimer Endowment, or the American Medical Women's Association.

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physicians from the California Department of Consumer Affairs. Subjects were selected in this manner because we were interested in studying gender differences and because males outnumbered females in a ratio of approximately 6 to 1. A follow-up mailing was sent 4 weeks later to nonresponders. All questionnaires were coded to ensure confidentiality. The Department of Consumer Affairs provided the age and sex of physicians who were nonresponders (those who received the questionnaire, but did not return it) and nonreceivers (those whose questionnaires could not be delivered by the postal service).

Physicians were included in this study if they had a correct mailing address and reported being currently married with children. The survey questions covered seven general areas: professional characteristics; spouse characteristics; family characteristics; household help characteristics; career changes for marriage and children; and attitudes—role conflict, marital satisfaction, and parental satisfaction.

Marital satisfaction was evaluated with a series of eight questions inquiring about the quality of the marriage, and each question was scored on a 5-point Likert scale (5 indicating high satisfaction). This instrument was selected because it had previously been used and validated among physicians.^{7,11} Parental satisfaction was evaluated using three similar questions about the quality of the respondent's relationship with his or her children. We judged this instrument to have face validity on the basis of extensive literature review and the opinion of experts in the field. For both satisfaction scales, factor analysis indicated that the items in each scale comprised one factor. Internal consistency was assessed and revealed an α score of .95 for the marital scale and .76 for the parental scale.

Analysis Plan

We used χ^2 , Student's *t*, and two-group Wilcoxon tests to assess gender differences in the variables we studied, depending on the type and distribution of the variable under consideration. Owing to the multiple comparisons being made, we chose $p \leq .01$ as the level of significance for bivariate analyses. All possible subsets regression was used to screen for important predictors for each of the two outcome variables—marital and parental satisfaction. We

included the following variables as predictors in each analysis: age, gender, specialty type, work hours, annual combined income, practice setting, spouse occupation, spouse work hours, spouse support for the physician's career, spouse household responsibilities, presence of household assistance, number and ages of children, and frequency of felt frustration. The final regressions included variables selected for the best subset according to Mallows's Cp. Mallows's Cp is a direct function of the residual sum of squares that incorporates a penalty for each variable added to the model to protect against overfitting.¹² The final regressions, which controlled for important covariates, consisted of two multiple logistic regression analyses, one modeling high marital satisfaction and the other modeling high parental satisfaction as the reference groups. We chose to dichotomize these into high versus not high marital and parental satisfaction because of the skewed distribution of these satisfaction scales.

RESULTS

Of the 1,412 questionnaires that were mailed, 964 (68%) were delivered, and the remaining 448 (32%) were not received because of incorrect address. Of the 964 questionnaires delivered, 656 (68%) were returned either partially or totally completed (responders). Fifty-three percent of respondents were male; 85% of these men were married, and 90% had children. Of those women responding, 64% were married and 73% had children. Among these 656 physicians, 492 (75%) were currently married, and 415 of these married physicians had children. This latter group formed our study sample. To evaluate for bias, we compared the age and gender of our sample with those of both the nonreceiver and nonresponder groups and found no differences with the exception that responders were older than nonreceivers (mean respective age 47 and 40 years, $p < .001$). To evaluate whether our sample was sociodemographically representative of all physicians in this country, we compared our data with the American Medical Association (AMA) database for age-gender categories and selected specialties,^{13,14} and found our sample to be similarly distributed to the AMA sample (Table 1).

Table 1. Comparison of Satisfaction Demographic Characteristics with AMA Data (1993)*

Variable	AMA Data, Proportion	Satisfaction Data, Proportion	Observed Difference	95% CI
Age <45 years/gender				
Male	.450	.360	.0578	-.00165, .114
Female	.710	.605	.052	-.015, .119
Internal medicine	.250	.230	.034	-.00208, .07
Pediatrics	.104	.120	.0289	-.0590, .00119
Anesthesiology	.067	.070	.00191	-.02, .0238

*AMA indicates American Medical Association. The numbers shown horizontally for the age/gender variable represent the proportion of the men or women in each database who were less than 45 years of age. The numbers shown horizontally for the specialty variables represent the proportion of all physicians in each database who were in the named specialty.

Table 2. Characteristics of Married Physicians with Children

Characteristic	Men, % (n = 264)	Women, % (n = 151)
Age*		
<45 years	36	61
≥45 years	64	39
Work hours/week*		
0	11	12
1–20	7	9
21–40	13	30
41–60	51	39
>60	21	10
Specialty*		
Family practice	22	23
Internal medicine	11	11
Medical subspecialties	13	10
Pediatrics	6	24
Surgical specialties	23	4
Ob/gyn	6	4
Psychiatry	3	8
Radiology	6	4
Anesthesiology	6	7
Other	6	5
Practice setting*		
Not working	11	12
Private practice	72	42
HMO (staff model)/other	17	45
Combined annual income*		
<\$50,000	9	0
\$50,000–\$100,000	21	38
>\$100,000–\$200,000	40	34
>\$200,000	30	28

(Continued)

Table 2. Continued

Characteristic	Men, % (n = 264)	Women, % (n = 151)
Spouse occupation*		
Physician	6	36
Medical field	17	3
Law	2	6
Business	4	16
Teaching	8	3
Homemaker	44	1
Other	19	34
Spouse work hours/week*		
0	52	3
1–20	12	3
21–40	25	35
41–60	8	46
>60	3	13
Spouse household responsibilities*		
None/some	5	64
Half	13	30
Most/all	82	5
Spouse support for career†		
None/some	7	9
Moderate	8	18
Very much/extreme	85	73
Presence of household help*	53	73
No children <12 years*	60	37
Role conflict‡		
None/some	40	13
Moderate	39	39
Very/extremely	23	48

*p ≤ .001.

†p ≤ .01.

‡Role conflict was assessed by asking about the frequency of felt frustration from the competing demands of career, marriage, and family.

Descriptive Characteristics

Gender differences in descriptive characteristics are shown in Table 2. The women physicians in our sample were younger than the men. Similar proportions of men and women physicians were currently working, with female physicians being more likely than their male peers to work part-time (less than 40 hours per week) and less likely to work long hours (more than 60 hours per week). We also found differences in the distribution of specialties practiced by gender. The most notable differences were that women were more likely than men to practice pediatrics, while men were more likely to be surgeons. Among working physicians, women were more likely than men to be practicing in settings other than private practice and to earn less money.

The characteristics of spouses varied by the gender of the physicians in our sample. For male physicians, half of the spouses did not work, and of those who did work, only 12% worked full-time. In comparison, nearly all of the spouses of female physicians worked (95%), and the major-

ity of them (59%) worked full-time. Regarding household responsibilities assumed by physicians' spouses, 82% of the male physicians' spouses performed most or all of the duties at home compared with 5% of the female physicians' spouses. In general, the majority of physicians in our sample received high levels of support for their careers from their mates, although the male physicians were more likely to receive higher levels of support than were the female physicians. The majority of all physicians employed some type of help at home, but more women than men did so.

Female physicians had significantly fewer children than male physicians, and the median number of children was 2 for all physicians (not shown). The male physicians were more likely to have older children than the female physicians.

Our measure of role conflict (frustration from the competing demands of career, marriage, and family) indicated that female physicians were more likely to experience moderate to high levels of frustration than were male physicians (87% vs 62%).

Marital and Parental Satisfaction

Table 3 presents the results of our two major dependent variables, marital and parental satisfaction. These scores are both shown by approximate tertiles. The ranges of scores represented by these tertiles are not exactly the same because the physicians in our sample reported somewhat higher scores for marital satisfaction (mean 3.92, range 1.75–5.0) than for parental satisfaction (mean 3.43, range 1.0–5.0). A moderate association was found between marital and parental satisfaction ($r = .48$). Women physicians were less satisfied with their marriages than the men, but this difference disappeared after stratifying for age (not shown). There were no significant gender differences in mean parental satisfaction scores.

The results of bivariate analysis between the two outcome variables of marital and parental satisfaction and possible related factors are shown in Table 4. Greater marital satisfaction was associated with greater spousal support for career, higher spouse work hours, and less role conflict. Parental satisfaction was associated with practice type (working in HMO or other settings, and not working in solo or group practice), spouse occupation as a professional or homemaker, higher spouse work hours, greater spousal support for career, and less role conflict. Neither marital nor parental satisfaction was related to physicians' gender, age, specialty, work hours, income, household responsibilities, presence of household help, or number of younger children. In addition, marital satisfaction was not related to practice type or spouse occupation.

Tables 5 and 6 summarize the results of multiple logistic regression analysis for the whole sample and for men and women separately. Variables for which no results are shown were not included in the final runs. In Table 5, high marital satisfaction was associated with a high level of career support from one's spouse and a lower level of role conflict. Separate analyses for men and women revealed the same results.

In Table 6, high parental satisfaction was associated with role conflict and with being younger than 45 years for all groups analyzed. Spouse support for career and marriage to a spouse who is a working professional were associated with higher family satisfaction in the analyses for the whole group and for female physicians. Similar trends were noted among male physicians, but these were not statistically significant. We found three other factors to be associated with high parental satisfaction only in the analysis for the whole group: practice setting other than private practice (mostly salaried positions), marriage to a homemaker, and marriage to a spouse who contributes little to household responsibilities.

DISCUSSION

In this study of married physicians with children, we evaluated two important aspects of a physician's life, marriage and parenthood. Our study is one of a few examining the effect of work and home life on marital satisfaction of physicians and the first to examine parental satisfaction of physicians.

Approximately half of the physicians in our sample were extremely or very satisfied with their marriages. Similar ratings were found among a group of Texas physicians. In that same sample of physicians, those who reported high levels of marital satisfaction also had higher levels of work satisfaction, lower levels of work stress, and higher levels of family competence.¹⁵ The links between marital satisfaction and work life issues suggest that maintaining a healthy balance is good for professional life as well as family life.

High marital satisfaction was associated with two factors: a supportive spouse and lower levels of role conflict. These results are similar to what is found in other research studies of marital satisfaction among physician and non-physician groups.^{7,16,17} The perception of a spouse's ability

Table 3. Measures of Marital and Parental Satisfaction Among Married Physicians with Children

Measure	Men	Women	Total
Marital satisfaction, mean score	(n = 261)	(n = 145)*	(n = 406)
1.0–3.99 (not at all, somewhat, or moderately satisfied), %	38	54	—
4.0–4.5 (very much satisfied), %	38	22	—
4.6–5.0 (extremely satisfied), %	24	23	—
Overall mean marital satisfaction score	3.97	3.85	3.92
Range	1.4–5.0	1.5–5.0	1.75–5.0
Parental satisfaction, mean score	(n = 233)	(n = 134)	(n = 367)
1.0–3.0 (not at all or somewhat satisfied), %	36	34	—
3.1–3.99 (moderately or very much satisfied), %	36	29	—
4.0–5.0 (extremely satisfied), %	28	37	—
Overall mean parental satisfaction score	3.39	3.50	3.43
Range	1.0–5.0	1.0–5.0	1.0–5.0

* $p \leq .01$.

**Table 4. Possible Predictors of High Marital and Parental Satisfaction Scores
Among Married Physicians with Children**

Variable	Marital Satisfaction, % (n)		Parental Satisfaction, % (n)	
	High (Score >4.5)	Other	High (Score >3.99)	Other
Gender	(96)	(310)	(116)	(251)
Male	24	76	27	72
Female	23	77	37	63
Age	(95)	(304)	(114)	(246)
<45 years	24	76	35	65
≥45 years	24	76	29	71
Work hours per week	(96)	(310)	(116)	(251)
0	33	67	36	64
1–20	28	100	35	65
>20–40	23	77	39	61
>40–60	22	78	28	72
>60	23	77	30	70
Specialty	(96)	(310)	(116)	(251)
Family practice	25	75	28	72
Internal medicine	32	68	36	64
Medical subspecialties	25	75	27	73
Pediatrics	10	90	36	64
General surgery	33	67	29	71
Surgical specialties	33	67	40	60
Ob/gyn	30	70	39	61
Psychiatry	10	90	17	83
Radiology	14	86	35	65
Anesthesiology	18	82	28	72
Other	23	77	33	67
Practice setting	(79)	(278)	(100)	(226)*
Solo practice	24	76	25	75
Group practice	21	79	27	73
HMO	23	77	35	65
Other	18	82	47	53
Annual combined income	(68)	(223)	(82)	(181)
<\$50,000	18	82	17	83
\$50,000–\$100,000	24	76	32	68
>\$100,000–\$200,000	21	79	28	72
>\$200,000–\$500,000	25	75	34	66
>\$500,000	40	60	62	38
Spouse occupation	(95)	(306)	(115)	(250) [†]
Physician	22	78	54	46
Medical field	22	78	21	79
Law	23	76	33	67
Business	27	73	40	60
Teaching	19	81	24	76
Homemaker	26	74	32	68
Other	27	73	20	80
Spouse work hours/week	(96)	(310) [‡]	(116)	(251) [‡]
0–10	28	72	30	70
11–20	19	81	25	75
21–40	14	86	24	76
41–60	31	69	40	60
≥61	23	77	35	65
Spouse support for career	(96)	(307) [†]	(116)	(249) [‡]
None/some	0	100	19	81
Moderate	6	94	19	81
Very much/extremely	29	71	35	65

(Continued)

Table 4. Continued

Variable	Marital Satisfaction, % (n)		Parental Satisfaction, % (n)	
	High (Score >4.5)	Other	High (Score >3.99)	Other
Spouse household responsibilities	(96)	(307)	(116)	(249)
None/some	22	78	41	59
Half	23	77	32	68
Most/all	24	76	27	73
Presence of household help	(94)	(303)	(113)	(249)
No	27	73	34	66
Yes	22	78	29	71
Number of children <12 years	(96)	(306)	(116)	(247)
0	25	75	29	71
1	18	82	33	67
2	26	74	40	60
≥3	32	68	24	76
Role conflict [§]	(95)	(310)*	(116)	(247) [†]
None/some	31	69	48	52
Moderate	26	74	30	70
Very much/extremely	13	87	21	79

* $p \leq .01$.[†] $p \leq .001$.[‡] $p \leq .05$.[§]Role conflict was assessed by asking about the frequency of felt frustration from the competing demands of career, marriage, and family.

to give and receive support has been shown to predict marital quality for both partners in a marriage.¹⁸

In this study role conflict is defined as “the perceived frustration resulting from the competing demands of career, marriage, and family.” We found role conflict to affect marital satisfaction in an inverse relation: i.e., lower levels of role conflict strongly predicted higher levels of marital satisfaction. However, we did not find physician work hours to influence marital satisfaction. Although this may seem contrary to expectations, others have also found that it is not the number of hours worked that affects satisfaction with marriage,⁹ but rather the role conflict experienced by the physician.⁸ In a group of practicing physicians, Gabbard et al. found no difference in marital satisfaction between physicians who worked 40 to 50 hours per week and those who worked 60 or more hours. However, the group working longer hours more frequently complained about “the lack of time for fun, family, and self.”⁸

We hypothesize that role conflict is an intervening variable between marital satisfaction and many other factors related to gender, age, work, and home life. These numerous factors appear to affect the level of role conflict experienced by a working parent. In other studies we and others have found that women are more likely to experience role conflict than men,^{19–25} and younger male physicians are more likely to do so than older male physicians.²⁵ Role conflict in working parents has been associated with excessive hours at work, scheduling, physically or psychologically demanding work, housework inequality, and child care difficulty.^{2,22,26,27}

Interventions in the workplace that decrease role conflict such as vacation time, flexible work hours, and equita-

ble part-time employment opportunities will assist physicians who are struggling to combine work and family. Many studies of physician and nonphysician working parents have shown that reasonable work hours and a work environment flexible to family responsibilities improve not only family life satisfaction, but also mental health, job satisfaction, and work productivity.^{2,22,26–28} Health services administrators should make these options available for physicians as they seek to improve productivity and retain qualified personnel. It is a win-win situation for administrators as well as for physicians and their families.

The physicians in our sample tended to be less satisfied with their roles as parents than with their marriages. Because childrearing requires continuous parental attention as children develop physically and emotionally, for many couples, raising children may be more complex and demanding than maintaining their marital relationship. Again we found lower role conflict and a supportive spouse were strongly related to parental satisfaction. These results place even more emphasis on the importance of making family-friendly work options viable for physicians.

The location and type of medical practice also appear to affect a physician's relationship with his or her children. Physicians in salaried positions, such as in staff-model HMO and Veterans Administration hospital settings, more frequently reported high parental satisfaction than did physicians in private fee-for-service practice. This may be because hours, call schedules, and income associated with salaried positions are more predictable. Some women physicians prefer working arrangements such as part-time and salaried positions so that they can spend more time with their children.^{29–31} Of note, the predominant concept

Table 5. Results of Logistic Regressions for High Marital Satisfaction*

Predictor Variable	Dependent Variable = High Marital Satisfaction		
	Whole Sample Adj. OR (95% CI)	Women Adj. OR (95% CI)	Men Adj. OR (95% CI)
Sex	—		
Age ≥ 45 years	0.73 (0.42, 1.26)	0.68 (0.26, 1.48)	0.58 (0.27, 1.19)
Work hours >40 /wk	—	0.80 (0.48, 1.35)	0.85 (0.60, 1.20)
Surgical subspecialty	—	2.24 (0.51, 9.89)	1.40 (0.74, 2.65)
Practice setting, HMO and other	0.73 (0.40, 1.33)	—	—
Spouse occupation, professional	1.06 (0.53, 2.12)	—	—
Spouse occupation, homemaker	1.44 (0.78, 2.69)	—	—
Spouse work hours	—	—	—
High spouse support for career	10.37 (2.66, 40.38)	10.8 (1.54, 75.89)	4.67 (1.29, 16.90)
High spouse home responsibilities	0.73 (0.49, 1.09)	—	—
Presence of household help	—	—	—
Presence of children <12 years	—	—	—
Role conflict	0.61 (0.42, 0.88)	0.59 (0.32, 1.10)	0.57 (0.36, 0.89)
Level of happiness in past week	—	—	—

*A dash (—) indicates that the variable was not included in the final analysis.

of HMO when this survey was conducted was the staff model and not the more contemporary concept of “HMO without walls.”

This study also indicates that the occupation of a physician's spouse may make a difference in parental satisfaction. Physicians married to a professional parent more commonly experienced high parental satisfaction than did physicians whose spouses worked at nonprofessional jobs. For the dual-career couple, the financial needs of a family are often better accommodated by two incomes than by one. The psychological burden of being the “sole breadwinner” may be eased, thereby freeing up emotional energy for the children. In addition, the professional spouse may be more intellectually satisfied than the nonprofessional and

more apt to enrich the home environment with new ideas and unique experiences.³²

Physicians who were married to a stay-at-home parent more commonly experienced high parental satisfaction than did physicians whose spouses worked at nonprofessional jobs. For those physicians whose spouse is a homemaker, improved parental satisfaction may result from the parents having their separate, well-defined roles. However, as only 1% of our female sample was married to homemakers, our results may not accurately represent this group.

It is noteworthy that we did not find specialty related to marital or parental satisfaction. This may be because both men and women medical students choose specialties with family considerations in mind,³³ thereby minimizing

Table 6. Results of Logistic Regressions for High Parental Satisfaction*

Predictor Variable	Dependent Variable = High Parental Satisfaction		
	Whole Sample Adj. OR (95% CI)	Women Adj. OR (95% CI)	Men Adj. OR (95% CI)
Sex	—		
Age ≥ 45 years	0.51 (0.29, 0.90)	0.40 (0.14, 1.12)	0.34 (0.16, 0.71)
Work hours >40 /wk	—	—	—
Surgical subspecialty	—	—	—
Practice setting, HMO and other	2.14 (1.21, 3.81)	—	—
Spouse occupation, professional	3.72 (1.86, 7.45)	3.70 (1.46, 9.34)	1.68 (0.61, 4.62)
Spouse occupation, homemaker	2.33 (1.20, 4.56)	—	—
Spouse work hours	—	—	—
High spouse support for career	2.24 (1.32, 3.80)	2.29 (1.12, 4.68)	1.85 (0.88, 3.92)
High spouse home responsibilities	0.63 (0.41, 0.97)	0.61 (0.26, 1.40)	0.61 (0.30, 1.24)
Presence of household help	—	—	—
Presence of children <12 years	—	—	—
Role conflict	0.35 (0.23, 0.52)	0.31 (0.15, 0.64)	0.36 (0.22, 0.59)
Level of happiness in past week	—	—	—

*A dash (—) indicates that the variable was not included in the final analysis.

the effect of specialty on marital or parental satisfaction of working physicians.

In the intervening time between when the study was conducted and this publication, managed care has become more prevalent in most parts of the country and the proportion of practicing physicians who are women has increased. Early results from the Physician Worklife Study in 1997 indicate that with managed care has come more time pressure and less job satisfaction.³⁴ Women in particular report more job stress, lower perceived wellness, and more burn-out than men. Insufficient organizational attention paid to personal time was found to be a key explanatory variable for these findings.³⁵ We expect that these issues would increase role conflict, our major predictor variable. These data suggest that repeating our study today could result in even lower levels of both marital and parental satisfaction, especially in women physicians, owing to the added time pressure and job stress of the current medical environment.

As in all studies that utilize questionnaires or interviews, our study is limited to data obtained from physicians' self-reports. Self-report bias might have especially affected reports of perceptions (e.g., regarding marital and parental satisfaction, frustration with role conflict, and spouse support for career). We suspect that because of social response bias, physicians would have reported higher marital and parental satisfaction than might have actually been.

Our study is limited in its ability to make causal inferences by its cross-sectional design. We also did not evaluate the marital and parental satisfaction of physicians' spouses, but prior research indicates that marital satisfaction scores of physicians and their spouses are highly correlated.⁹ Other limitations of this study center on issues of generalizability. Because the study group included only married physicians with children, results can only be applied to a similar group. Although this represents the majority of physicians (three quarters of male physicians and half of female physicians), our sample excludes single, widowed, and currently divorced parents because our independent and dependent variables examined three interrelated domains: career, marriage, and family. Our sample was from one county and was not selected randomly, although it was selected in an unbiased manner. The similarity in demographic characteristics between our sample and the AMA physician database shows that our data should be representative of married physicians with children who live outside Southern California (see Table 1). It is possible that selection bias was created by the nonresponders and nonreceivers. We believe the higher than expected nonreceiver rate was due to the inaccurate mailing addresses from our original list. The younger age of the nonreceiver group may indicate that many of these are young physicians in training who move frequently. The study area included a medical school and major university teaching hospital.

In conclusion, it appears that once the choice of medical specialty is made, minimizing the level of role conflict and having a supportive spouse are the two most impor-

tant factors influencing marital and parental satisfaction among physicians. Among working physicians with children, role conflict appears to be the intervening factor between both marital and parental satisfaction and conditions at work and home, such as work hours, child care, and household responsibilities. Furthermore, working in a salaried medical position may benefit parental satisfaction. Our findings support the growing body of literature that family-friendly work options are good for working parents, their families, and their employers.

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REFERENCES

1. Drucker DG. Role conflict in women physicians: a longitudinal study. *J Am Med Womens Assoc.* 1986;41:14-6.
2. Pleck JH, Staines GL, Lang L. Conflicts between work and family life. *Monthly Labor Rev.* March 1980:29-32.
3. Ogle KS, Henry RC, Durda K, Zivick JD. Gender-specific differences in family practice graduates. *J Fam Pract.* 1986;23:357-60.
4. Martin SC, Parker RM, Arnold RM. Careers of women physicians: choices and constraints. *West J Med.* 1988;149:758-60.
5. Rollman BL, Mead LA, Wan NY, Klag MJ. Medical specialty and the incidence of divorce. *N Engl J Med.* 1997;336:800-3.
6. Garvey M, Tauson VB. Physician marriages. *J Clin Psychiatry.* 1979;40:129-31.
7. Ricer RE. Marital satisfaction among military and civilian family practice residents. *J Fam Pract.* 1983;17:303-7.
8. Gabbard GO, Menninger RW, Coyne L. Sources of conflict in the medical marriage. *Am J Psychiatry.* 1987;144:567-72.
9. Lewis JM, Barnhart FD, Nace EP, Carson DI, Howard BL. Marital satisfaction in the lives of physicians. *Bull Menninger Clin.* 1993; 57:458-65.
10. Valliant GE, Sobowale NC, McArthur C. Some psychologic vulnerabilities of physicians. *N Engl J Med.* 1972;287:372-5.
11. Hendrick SS. Self-disclosure and marital satisfaction. *J Pers Soc Psychol.* 1981;40:1150-9.
12. Daniel C, Wood FS. *Fitting Equations to Data.* New York, NY: Wiley; 1971.
13. Gonzolez ML, ed. *Socioeconomic Characteristics of Medical Practice.* Chicago, Ill: Am Med Assoc Publications; 1993:10,11,27,40,141.
14. Roback G, Randolph, Seidman B. *Physician Characteristics and Distribution in the U.S.* Chicago, Ill: Am Med Assoc Publications; 1993:12,41-2,75-7.
15. Lewis JM, Barnhart FD, Howard BL, Carson DI, Nace EP. Work satisfaction in the lives of physicians. *Texas Med J.* 1993;89:54-61.
16. Bahr SJ, Chappell CB, Leigh GK. Age at marriage, role enactment, role consensus, and marital satisfaction. *J. Marriage Family.* November 1983:795-803.
17. Broman CL, Riba ML, Trahan M. *Life Events and Marital Well-being.* East Lansing, Mich: Department of Sociology, Michigan State University, publication 48824-1111.
18. Vannoy D, Philliber WW. Wife's employment and quality of marriage. *J Marriage Family.* 1992;54:387-98.
19. Nadelson CC, Notman MT, Lowenstein P. The practice patterns, life styles, and stresses of women and men entering medicine: a follow-up study of Harvard Medical School graduates from 1967-1977. *J Am Med Womens Assoc.* 1979;34(11):400-6.

20. Le Bailley SA, Brotherton SE. Career Paths of Men and Women in Pediatrics: Descriptive Findings from the Survey on Pediatric Careers. Elk Grove Village, Ill: American Academy of Pediatrics; 1988.
21. Linn L, Yager J, Cope D, Leake B. Health status, job satisfaction and life satisfaction among academic and clinical faculty. *JAMA*. 1985;254:2775-83.
22. Driscoll MP, Ilgen DR, Hildreth D. Time devoted to job and off-job activities, interrole conflict, and affective experiences. *J Appl Psychol*. 1992;77:272-9.
23. Thompson CA, Thomas CC, Maier M. Work-family conflict: reassessing corporate policies and initiatives. In: Sekaran U, Leong FT, eds. *Womanpower: Managing in Times of Demographic Turbulence*. Newbury Park, Calif: Sage Publications; 1992:61-78.
24. Friedman DA. Linking Work-Family Issues to the Bottom Line. New York, NY: The Conference Board, Inc.; 1991:15-7.
25. Warde C, Allen W, Gelberg L. Physician role conflict and resulting career changes. *J Gen Intern Med*. 1996;11:729-35.
26. Barker K. Changing assumptions and contingent solutions: the costs and benefits of women working full-and part-time. *Sex Roles*. 1993;28:47-71.
27. Hughes DL, Galinsky E. Gender, job and family conditions and psychological symptoms. *Psychol Women Q*. 1994;18:251-70.
28. Wiersma UJ. Gender differences in job attribute preferences: work-home role conflict and job level as mediating variables. *J Occup Psychol*. 1990;63:231-43.
29. Levinson W, Tolle SW, Lewis C. Women in academic medicine. *N Engl J Med*. 1989;321:1511-7.
30. Lee RH, Mroz TA. Family structure and physicians' hours in large, multispecialty groups. *Inquiry*. 1991;28:366-74.
31. Dennerstein L, Leher P, Orams R, Ewing J, Burrows G. Practice patterns and family life: a survey of Melbourne medical graduates. *Med J Aust*. 1989;151:386-90.
32. Parcel TL, Menaghan EG. *Parent's Jobs and Children's Lives*. Hawthorne, NY: Walter de Gruyter; 1994.
33. Stein J. Impact on personal life key to choosing a medical specialty in the 80's. *Intern Med World Rep*. 1988;3:7-8.
34. Linzer M, Konrad TR, Douglas J. Managed care, time pressure and career satisfaction: results from The Physician Worklife Study. *J Gen Intern Med*. 1998;13(suppl 1):S68.
35. McMurray JE, Linzer M, Konrad TR, et al. The Physician Worklife Study: how do women physicians fare in 1997? *J Gen Intern Med*. 1998;13(suppl 1):S120.