



Conflict and emotional exhaustion in obstetrician-gynaecologists: a national survey

John D Yoon, Kenneth A Rasinski and Farr A Curlin

J Med Ethics 2010 36: 731-735
doi: 10.1136/jme.2010.037762

Updated information and services can be found at:
<http://jme.bmj.com/content/36/12/731.full.html>

These include:

References

This article cites 22 articles, 3 of which can be accessed free at:
<http://jme.bmj.com/content/36/12/731.full.html#ref-list-1>

Email alerting service

Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
<http://group.bmj.com/group/rights-licensing/permissions>

To order reprints go to:
<http://journals.bmj.com/cgi/reprintform>

To subscribe to BMJ go to:
<http://group.bmj.com/subscribe/>

Conflict and emotional exhaustion in obstetrician-gynaecologists: a national survey

John D Yoon,^{1,3} Kenneth A Rasinski,² Farr A Curlin^{2,3}

¹Section of Hospital Medicine, University of Chicago, Illinois, USA

²Section of General Internal Medicine, University of Chicago, Illinois, USA

³Associate Faculty, MacLean Center for Clinical Medical Ethics, University of Chicago, Illinois, USA

Correspondence to

Dr John D Yoon, University of Chicago, Department of Medicine, 5841 South Maryland Avenue, MC 5000, Chicago, Illinois 60637 USA; jdyeon@uchicago.edu

Received 12 May 2010

Revised 7 July 2010

Accepted 26 July 2010

ABSTRACT

Context Conflicts over treatment decisions have been linked to physicians' emotional states.

Objective To measure the prevalence of emotional exhaustion and conflicts over treatment decisions among US obstetrician/gynaecologists (ob/gyns), and to examine the relationship between the two and the physician characteristics that predict each.

Methods Mailed survey of a stratified random sample of 1800 US ob/gyn physicians. Criterion variables were levels of emotional exhaustion and frequency of conflict with colleagues and patients. Predictors included physicians' religious characteristics and self-perceived empathy.

Results Response rate among eligible physicians was 66% (1154/1760). 36% of ob/gyns reported high levels of emotional exhaustion, and majorities reported conflict with colleagues (59%) and patients (61%). Those reporting conflict were much more likely to report emotional exhaustion (58% vs 29% who never conflict, OR, 95% CI 2.8, 1.6 to 4.8 for conflict with colleagues; 55% versus 26%, OR, 95% CI 2.2, 1.4 to 3.5 for conflict with patients). Physicians with lower self-perceived empathy were more likely to report physician-patient conflicts (65% vs 58% with higher empathy, OR, 95% CI 1.4, 1.0 to 1.9), as were female ob/gyns (66% vs 57% of males, OR, 95% CI 1.5, 1.1 to 2.0). Foreign-born physicians were less likely to report such conflicts (47% vs 64% of US born, OR, 95% CI 0.5, 0.4 to 0.8). Physicians' religious characteristics were not significantly associated with reporting conflict.

Conclusions Conflicts over treatment decisions are associated with physicians' empathy, gender, immigration history and level of emotional exhaustion. With respect to the latter, conflict in the clinical encounter may represent an overlooked source or sign of burnout among ob/gyns.

INTRODUCTION

Conflicts over treatment decisions can be a source of work-related stress in clinicians, potentially contributing to emotional exhaustion.^{1 2} Among obstetrician-gynaecologists (ob/gyns), emotional exhaustion has been associated with lower career satisfaction,³ and feelings of emotional exhaustion are central to the burnout syndrome in clinicians.⁴ Though not studied extensively among ob/gyns, conflicts have been associated with emotional exhaustion in other clinicians, suggesting an important relationship between conflicts in the clinical encounter and clinicians' emotional responses to their work.^{1 2} As a result, physicians who cultivate empathy in their practice may be better able to avoid and resolve conflicts.⁵

Conflicts arise from a variety of sources, such as diagnostic uncertainty, personality differences,

miscommunication, unmet expectations and discordant goals.^{6 7} Importantly, recent studies have raised questions about how frequently religious commitments and moral beliefs lead to conflicts.^{8 9} Lawrence and Curlin showed that religious physicians are more likely to believe they are never obligated to do what they personally believe is wrong, and they are more supportive of refusing to refer a patient who requests a controversial intervention to an accommodating provider.¹⁰ This same study also found that foreign-born physicians were more likely than those born in the USA to report that physicians are sometimes obligated to do what they personally believe is wrong. Such findings suggest that physicians with religious, moral or cultural objections might experience conflict more frequently with patients or colleagues who do not share such objections, especially in sexual and reproductive healthcare.

Although conflicts have been studied in several areas of medicine,^{8 11 12} little is known about the prevalence of conflicts among practicing ob/gyns. We therefore surveyed a nationally representative sample of ob/gyns to determine the frequencies of conflicts as well as their associations with physicians' personal and professional characteristics (focusing on religion, empathy, demographics and practice characteristics). We then tested whether conflict is associated with emotional exhaustion, a chief component of burnout.

METHODS

From October 2008 until June 2009, we mailed a confidential, self-administered, 12-page questionnaire to a stratified, random sample of 1800 practicing US ob/gyns age 65 or younger. This sample was drawn from the American Medical Association's Physician Masterfile—a database intended to include all practicing US physicians. To increase minority representation (especially minority religious perspectives), we used validated surname lists as described in a previous publication.¹³ Physicians received up to three separate mailings of the questionnaire. The first mailing included a \$20 bill and the third offered an additional \$30 for participation. The University of Chicago Institutional Review Board approved this study.

QUESTIONNAIRE

Physicians and conflicts

The primary criterion variables for this analysis were physicians' reports of conflict and emotional exhaustion. Conflict was measured by physicians' responses to the following statements: (1) 'I make treatment decisions that are in conflict with the expectations of my immediate colleagues'. (2) 'I

make treatment decisions that are in conflict with my patients' expectations'. Response options used a 7-point scale ('never' to 'daily'). In order to broadly capture the various types of conflicts that may occur in a clinical encounter, we did not define the term *conflict* in the survey and allowed respondents to apply their own working definitions. Moreover, since reported conflicts were infrequent, the primary criterion measure was whether physicians report ever having conflicts (yes/no). We also created a three-category version of this variable (never, a few times a year or less, more than a few times a year) to use as a predictor when analysing physicians' experiences of emotional exhaustion.

We measured emotional exhaustion using the Emotional Exhaustion Subscale (5 items) from the Maslach Burnout Inventory-General Survey,⁴ a standardised measurement tool for burnout. Given the space limitations in our questionnaire, we included only the central component of burnout (emotional exhaustion). Items assessed how frequently respondents reported experiences and thoughts related to emotional exhaustion on a 7-point scale from 0 (never) to 6 (daily). The scale demonstrated high internal consistency (Cronbach's $\alpha=0.93$) in our population. Respondents' levels of emotional exhaustion (low, moderate, high) were identified by using established cutoffs based on normative data from previous studies.⁴

Primary predictors included self-perceived empathy and physicians' religious characteristics. We measured self-perceived empathy by asking physicians the following questions: 'If each of the following were to assess how empathetic you are with patients, how do you think they would compare you to the average ob/gyn? (1) How would *nurses* who work with you rate your empathy? (2) How would *patients* you take care of rate your empathy? (3) How would *you* rate your empathy? Response categories included below average, average and above average. The questions had good internal consistency (Cronbach's $\alpha =0.80$). Because of skew towards high self-ratings, results were divided into those who marked 'above average' for all three items (high self-perceived empathy) and those who did not (low). These items were developed after a review of the medical literature and pretested and revised for clarity and relevance through multiple iterations of expert panel review and cognitive interviews.

Religious affiliation was classified as none/no affiliation, Hindu, Jewish, Muslim, Catholic (included 237 Roman Catholic and 25 Eastern Orthodox respondents), evangelical Protestant, non-evangelical Protestant, and other religion (included nine Buddhists and 39 physicians with other religious affiliations). We measured the frequency of attending religious services (never, once a month or less, twice a month or more). We also measured the importance of religion with the question, 'How important would you say your religion is in your own life?' (not very important, fairly important, very important, most important).

Other predictors included measures of respondents' demographic and work characteristics: age, gender, race/ethnicity, region, immigration history (US born vs foreign born), patient workload (total number of patients seen weekly), practice size (total number of colleagues in primary place of practice), and whether the practice was religiously affiliated.

STATISTICAL ANALYSIS

Case weights were included in analyses to account for sample stratification and modest differences in response rate by ethnic surname oversamples and foreign medical school graduation status. Weights were the inverse probability of a person with the relevant characteristic being in the final dataset. The final weight

for each case was the product of the design weight and the post-stratification adjustment weight. This method of case weighting—widely used in population-based research¹⁴—enabled us to adjust for sample stratification and variable response rates in order to generate estimates for the population of US ob/gyns. Respondents who left questions blank were omitted from analyses of those items. We first generated population estimates for responses to the various survey items. We then used the χ^2 test to examine differences in these responses by physicians' demographic, professional and religious characteristics. Finally, we used multivariate logistic regression to test whether bivariate associations remained significant after adjusting for relevant covariates. All analyses were conducted using the survey commands of Stata/SE V.10.0 statistical software.

RESULTS

Survey response

Of the 1800 potential respondents to the survey, 40 were ineligible because they had retired or could not be contacted because of incorrect addresses. Among eligible physicians the response rate was 66% (1154/1760). Response rates varied by sample: 68% (807/1188) of the primary sample responded, 54% (120/221) of those with Arabic surnames responded, 61% (107/175) of those with South Asian surnames responded, and 68% (120/176) of those with Jewish surnames responded. Graduates of foreign medical schools were less likely to respond than graduates of US medical schools (58% vs 68%, $p=0.001$). Response rates did not differ significantly by age, gender, region or board certification. The demographic, professional and religious characteristics of respondents are summarised in table 1.

Physicians' reports of emotional exhaustion and conflicts with colleagues and patients

As seen in table 2, 36% of US ob/gyns report high levels of emotional exhaustion (24% moderate, 40% low). Forty-one per cent of ob/gyns report never making treatment decisions that are in conflict with the expectations of their immediate colleagues; 47% report conflict a few times a year or less and 12% report conflict more than a few times a year. Thirty-nine per cent of ob/gyns report never making treatment decisions that are in conflict with the expectations of their patients; 43% report conflict a few times a year or less and 18% report conflict more than a few times a year.

Frequency of conflict and the incidence of high emotional exhaustion

Compared to those who never report conflicts, ob/gyns who report physician-colleague conflicts are more likely to report high emotional exhaustion (OR 2.8, 95% CI 1.6 to 4.8). The same was true for physicians who report conflicts with patients (OR 2.2, 95% CI 1.4 to 3.5) (table 3).

Physician characteristics associated with experiencing conflicts with colleagues and patients

The strongest predictor of physician-colleague conflict was immigration history: foreign-born physicians were less likely to report conflict compared to US born physicians (47% vs 62%, $p<0.001$, OR 0.5, 95% CI 0.4 to 0.8). In addition, physicians in religiously affiliated practices were more likely to report conflict with colleagues (66% vs 57%, $p=0.04$; OR 1.4, 95% CI 1.0 to 1.9). There were no significant associations between physician-colleague conflicts and physician self-perceived empathy, religious characteristics, age, gender, race/ethnicity, region of practice or practice size (table 4).

Table 1 Respondent characteristics

Demographics (1154 US ob/gyns)	
Age in years (SD)	47.8 (9.2)
Women, n (%)	537 (47)
Married, n (%)	965 (84)
≥1 Child at home, n (%)	973 (85)
Region, n (%)	
Northeast	288 (25)
South	373 (32)
Midwest	249 (22)
West	242 (21)
Race/ethnicity, n (%)	
Asian	202 (18)
Hispanic or latino	64 (6)
Black, non-hispanic	67 (6)
White, non-hispanic	774 (69)
Other	22 (2)
Immigration history, n (%)	
Born in the United States	817 (72)
Immigrated to United States at any age	323 (28)
Religiously affiliated practice*, n (%)	225 (20)
Total patient workload, n (%)	
0-70 Patients seen per week	376 (33)
71-100	357 (31)
>100	421 (36)
Practice size, n (%)	
0-2 Colleagues in primary place of practice	339 (30)
3-5	334 (29)
>5	463 (41)
Self-perceived empathy, n (%)	
High	684 (61)
Low	445 (39)
Religious affiliation, n (%)	
None	119 (11)
Hindu	91 (8)
Jewish	160 (14)
Muslim	54 (5)
Roman catholic/eastern orthodox	262 (23)
Protestant, Evangelical	91 (8)
Protestant, non-evangelical	300 (27)
Other religion	48 (4)
Attendance at religious services, n (%)	
Never	123 (11)
Once a month or less	547 (48)
Twice a month or more	466 (41)
Importance of religion, n (%)	
Not very important	272 (24)
Fairly important	321 (28)
Very important	385 (34)
Most important	157 (14)

Note: n-counts do not all sum to 1154 because of partial non-response. Percentages do not all sum to 100% because of rounding error. Ob/gyn, obstetrician-gynecologists.

*Respondents were asked, 'Is your primary place of practice religiously affiliated? (Yes/no)'.

With respect to conflict with patients, ob/gyns with lower self-perceived empathy were more likely to report physician-patient conflicts (65% vs 58% with higher empathy, OR 1.4, 95% CI 1.0 to 1.9), as were female ob/gyns (66% vs 57% of males, OR 1.5, 95% CI 1.1 to 2.1). Foreign-born physicians were again less likely than US born physicians to report conflicts (47% vs 64%, $p < 0.001$, OR 0.5, 95% CI 0.4 to 0.8). On bivariate analysis, minority physicians (black=49%, Asian=57%, Hispanic=49%) were less likely than white physicians (63%) to report conflict with patients ($p = 0.02$), but this association did not remain significant after adjusting for other covariates. There were no significant associations between physician-patient

Table 2 Prevalence of emotional exhaustion and conflict over treatment decisions among US obstetrician-gynecologists

	N (%)
Emotional exhaustion (burnout subscale)*	
Low	475 (40)
Moderate	265 (24)
High	388 (36)
Conflict with colleagues	
Never	470 (41)
A few times a year or less	522 (47)
Once a month or less	62 (5)
A few times a month	44 (4)
Once a week	11 (1)
A few times a week	12 (1)
Daily	5 (<1)
Conflict with patients	
Never	457 (39)
A few times a year or less	485 (43)
Once a month or less	98 (9)
A few times a month	64 (6)
Once a week	11 (1)
A few times a week	7 (<1)
Daily	5 (<1)

Table presents survey-design adjusted population estimates of US obstetrician-gynecologists

*Mean (SD) score for emotional exhaustion was 2.60 (1.52).

Categorisation cutoffs were based on normative data from previous studies (low < 2.00, moderate 2.01-3.19, high > 3.20)⁴

conflicts and physician age, region of practice, religious characteristics or work in a religiously affiliated practice.

DISCUSSION

In this large, cross-sectional survey of US ob/gyns, we found that the experience of conflict over treatment decisions is associated with high emotional exhaustion. In this study, 36% of US ob/gyns report high levels of emotional exhaustion from their work, indicating that more than a third of all practicing ob/gyn physicians in the USA are at high risk for burnout (emotional exhaustion is considered to be the chief component of the burnout syndrome⁴). These levels of emotional exhaustion may

Table 3 Prevalence of high emotional exhaustion among US obstetrician-gynecologists, stratified by frequency of conflict over treatment decisions

	High emotional exhaustion		
	Bivariate		Multivariate*
	%	$p(\chi^2)$	OR (95% CI)
Conflict with colleagues			
Never	29	<0.001	Referent
A few times a year or less	37		1.2 (0.9 to 1.7)
More than a few times a year	58		2.8 (1.6 to 4.8)†
Conflict with patients			
Never	26	<0.001	Referent
A few times a year or less	37		1.3 (0.9 to 1.8)
More than a few times a year	55		2.2 (1.4 to 3.5)†

Table presents survey-design adjusted population estimates of US obstetrician-gynecologists who report high emotional exhaustion (burnout subscale), stratified by level of frequency of conflict. For example, 58% of obstetrician-gynecologists who report conflict with colleagues more than a few times a year also report high emotional exhaustion.

*Multivariate results present odds ratios (95% CIs) adjusted for age, gender, race/ethnicity, marital status, children, immigration history, total patient workload and self-perceived empathy.

† $p \leq 0.001$.

Table 4 Prevalence of reporting conflicts with colleagues and patients, stratified by obstetrician-gynecologists' demographic and professional characteristics

Demographic and Professional Characteristics	Conflict with colleagues			Conflict with patients		
	Bivariate		Multivariate* OR (95% CI)	Bivariate		Multivariate* OR (95% CI)
	%	p(χ^2)		%	p(χ^2)	
All Physicians	59			61		
Age						
25–35 years	62	0.89	Referent	67	0.19	Referent
36–45 years	60		1.0 (0.6 to 1.7)	60		1.0 (0.6 to 1.6)
46–55 years	59		0.9 (0.5 to 1.6)	63		1.2 (0.7 to 2.0)
56–65 years	58		0.9 (0.5 to 1.6)	55		1.0 (0.6 to 1.8)
Gender						
Male	61	0.38	Referent	57	0.004	Referent
Female	58		0.8 (0.6 to 1.1)	66		1.5 (1.1 to 2.1)‡
Race/ethnicity						
White, non-Hispanic	62	0.10	Referent	63	0.02	Referent
Black, non-Hispanic	53		0.9 (0.5 to 1.5)	49		0.6 (0.4 to 1.0)
Asian	53		1.1 (0.7 to 1.8)	57		1.1 (0.7 to 1.8)
Hispanic	49		0.8 (0.4 to 1.5)	49		0.8 (0.4 to 1.4)
Other	56		1.0 (0.3 to 3.8)	69		1.3 (0.5 to 3.3)
Immigration history						
Born in the USA	62	<0.001	Referent	64	<0.001	Referent
Immigrated to USA	47		0.5 (0.4 to 0.8)‡	47		0.5 (0.4 to 0.8)‡
Religiously affiliated practice						
No	57	0.04	Referent	61	0.69	Referent
Yes	66		1.4 (1.0 to 1.9)	60		0.9 (0.6 to 1.3)
Self-perceived empathy						
High	58	0.27	Referent	58	0.04	Referent
Low	61		1.2 (0.9 to 1.6)	65		1.4 (1.0 to 1.9)† §
Practice size (# of colleagues)						
0–2	54	0.07	Referent	N/A		
3–5	58		1.0 (0.7 to 1.5)			
>5	63		1.3 (0.9 to 1.9)			
Total patient workload						
0–70 patients seen weekly	N/A			55	0.006	Referent
71–100				67		1.7 (1.2 to 2.5)‡
>100				60		1.2 (0.9 to 1.7)

Table presents survey-design adjusted population estimates for US obstetrician-gynecologists.

*Multivariate results present odds ratios (95% CI) adjusted for all the variables listed above, except that practice size was only included in analyses involving conflict with colleagues, while total patient workload was only included in analyses involving conflict with patients.

†p<0.05.

‡p<0.01.

§p=0.09.

have troubling workforce implications, given the growing evidence linking burnout to lower quality of care.¹⁵

Despite a burgeoning literature on job satisfaction and burnout among physicians,^{16–17} the complex relationship between physicians' experiences of conflict and their emotional responses to work is not clearly understood. The strong association between conflicts and emotional exhaustion may lend support to the social exchange model of burnout, which proposes that burnout results from a lack of a reciprocal relationship between physicians and patients.^{17–18} Conflicts over treatment decisions may be one manifestation of this lack of reciprocity in the physician-patient relationship, and the absence of reciprocity is thought to cause emotional stress that leads to exhaustion and burnout.¹⁸

In our study, physicians with lower self-perceived empathy, females, and US born physicians were more likely to report conflicts with patients. That physicians with lower self-perceived empathy report more physician-patient conflicts is consistent with one study in which physicians' perceived lack of caring increased patient dissatisfaction and the risk of malpractice lawsuits.¹⁹ It may be that physicians in our study are aware

of some difficulty in appreciating another person's perspective, and that those with more empathy have an advantage in avoiding interpersonal conflicts.

We did not anticipate the finding that female ob/gyns in the USA are more likely to report conflicts with their patients. A body of research suggests that female physicians engage in more emotionally focused, patient-centred communication. Yet one review²⁰ noted that obstetrics and gynaecology in the USA may present a different pattern from other specialties: male ob/gyns have been found to demonstrate higher levels of emotionally focused talk than their female colleagues. Alternatively, US patients may have higher expectations of female ob/gyns than they do of male ob/gyns. For example, one study found that female patients are more likely to choose a female physician but also less likely to be satisfied with the female physicians they have chosen.²¹ The authors of this study suggest that such patients may have had greater unmet expectations, or that patients may be more willing to voice disagreements with physicians of the same gender.

Foreign-born physicians' lower rates of conflict reflect previous data that suggest immigrant physicians seek to reduce

the stress related to post-immigration adjustment. In one study, immigrant physicians who exhibited successful professional adaptation were more likely to report decreased amounts of stress and psychological distress.²² Foreign-born physicians may adapt to their host professional culture in part by minimising conflicts with patients and colleagues. It is also worth noting that in a recent study by Lawrence and Curlin, foreign-born physicians were much more likely than those born in the US to report that physicians are sometimes obligated to do what they personally believe is wrong.¹⁰ Perhaps foreign-born physicians avoid conflict by acceding to patient requests even if they personally disagree with or morally object to the requested intervention.

Contrary to our initial expectations, physicians' religious characteristics were not associated with the frequency of conflicts over treatment decisions. Though previous studies have shown that religious physicians are more likely to object to a range of morally controversial treatment decisions,²³ these moral objections do not appear to translate into increased conflicts over treatment decisions at the level of the clinical encounter. How can this be? The relative infrequency of reported conflicts suggests that physicians are gravitating toward clinical specialties in which they are less likely to encounter interventions to which they object. In addition, patients probably avoid seeing physicians with whom they previously had conflicts over treatment decisions. Alternatively, it may be that physicians who object to one intervention or another find ways to arrange mutually acceptable accommodations with patients and colleagues who do not share their objections. Disagreements may not be perceived as conflictual if they are accompanied by sincere efforts to negotiate an accommodation.²⁴ Lastly, our findings may simply reflect the fact that US ob/gyns, regardless of their religious characteristics, all face similar emotional stresses related to workload, control over schedule and hours, work-life balance, and fears of litigation.^{3 25} These sources of conflict may be more commonly shared and therefore apply equally across religious groups.

Our study has several limitations. First, clinicians' reports of conflicts are imperfect measures of clinical events, and our survey questions did not attempt to distinguish between the various sources of conflicts that a clinician might face. Our measure of self-perceived empathy has face validity, but findings related to it should be considered provisional until the measure has been further refined and studied. In this study we used only one subscale of the Maslach Burnout Inventory, and inclusion of other subscales (depersonalisation, personal accomplishment) would have allowed for stronger inferences about the prevalence of burnout among ob/gyns. Furthermore, our analyses involving emotional exhaustion did not control for the number of hours worked per week or the number of nights on call, though we used the total number of patients seen per week as a proxy for these variables. Finally, the cross-sectional design of this study does not permit causal inferences between emotional exhaustion and conflicts over treatment decisions, given that conflicts might act both as stressors for and outcomes of emotional exhaustion.

CONCLUSION

In this large national survey of US ob/gyns, we found that religious physicians did not report more frequent conflicts over their treatment decisions. Instead, conflicts over treatment decisions were associated with physicians' empathy, gender,

immigration history, and their level of emotional exhaustion. With respect to the latter, conflicts in the clinical encounter may represent an overlooked source or sign of burnout among ob/gyn physicians.

Funding Supported by grants from the Greenwall Foundation, John Templeton Foundation, and National Center for Complementary and Alternative Medicine (1 K23 AT002749, to FAC). Funding agencies did not participate in study design, data acquisition, analysis, interpretation, writing or submission.

Competing interests None.

Ethics approval This study was conducted with the approval of the The University of Chicago Institutional Review Board.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

1. **Poncet MC**, Toullic P, Papazian L, *et al*. Burnout syndrome in critical care nursing staff. *Am J Respir Crit Care Med* 2007;**175**:698–704.
2. **Bernhardt BA**, Rushton CH, Carrese J, *et al*. Distress and burnout among genetic service providers. *Genet Med* 2009;**11**:527–35.
3. **Keeton K**, Fenner DE, Johnson TR, *et al*. Predictors of physician career satisfaction, work-life balance, and burnout. *Obstet Gynecol* 2007;**109**:949–55.
4. **Maslach C**, Jackson SE, Leiter MP. *Maslach burnout inventory manual*. 3rd edn. Palo Alto: Consulting Psychologists Press, 1996.
5. **Halpern J**. Empathy and patient-physician conflicts. *J Gen Intern Med* 2007;**22**:696–700.
6. **Goold SD**, Williams B, Arnold RM. Conflicts regarding decisions to limit treatment: a differential diagnosis. *JAMA* 2000;**283**:909–14.
7. **Chervenak FA**, McCullough LB. Clinical guides to preventing ethical conflicts between pregnant women and their physicians. *Am J Obstet Gynecol* 1990;**162**:303–7.
8. **Stulberg DB**, Lawrence RE, Shattuck J, *et al*. Religious hospitals and primary care physicians: conflicts over policies for patient care. *J Gen Intern Med* 2010;**25**:725–30.
9. **Lawrence RE**, Curlin FA. Autonomy, religion and clinical decisions: findings from a national physician survey. *J Med Ethics* 2009;**35**:214–18.
10. **Lawrence RE**, Curlin FA. Physicians' beliefs about conscience in medicine: a national survey. *Acad Med* 2009;**84**:1276–82.
11. **Studdert DM**, Burns JP, Mello MM, *et al*. Nature of conflict in the care of pediatric intensive care patients with prolonged stay. *Pediatrics* 2003;**112**(3 Pt 1):553–8.
12. **Breen CM**, Abernethy AP, Abbott KH, *et al*. Conflict associated with decisions to limit life-sustaining treatment in intensive care units. *J Gen Intern Med* 2001;**16**:283–9.
13. **Yoon J**, Rasinski K, Curlin F. Moral controversy, directive counsel and the doctor's role: Findings from a national survey of obstetrician-gynaecologists. *Acad Med* 2010;**85**:1475–81.
14. **Groves R**, Fowler F, Couper M, *et al*. *Survey methodology*. Hoboken, NJ: John Wiley & Sons, Inc, 2004.
15. **West CP**, Tan AD, Habermann TM, *et al*. Association of resident fatigue and distress with perceived medical errors. *JAMA* 2009;**302**:1294–300.
16. **Scheurer D**, McKean S, Miller J, *et al*. U.S. physician satisfaction: a systematic review. *J Hosp Med* 2009;**4**:560–8.
17. **Halbesleben J**. Patient reciprocity and physician burnout: what do patients bring to the patient-physician relationship? *Health Serv Manage Res* 2006;**19**:215–22.
18. **Schaufeli WB**, van Dierendonck D, can Gorp K. Burnout and reciprocity: towards a dual-level social exchange model. *Work and Stress* 1996;**10**:225–37.
19. **Beckman HB**, Markakis KM, Suchman AL, *et al*. The doctor-patient relationship and malpractice. Lessons from plaintiff depositions. *Arch Intern Med* 1994;**154**:1365–70.
20. **Roter DL**, Hall JA, Aoki Y. Physician gender effects in medical communication: a meta-analytic review. *JAMA* 2002;**288**:756–64.
21. **Schmittiel J**, Grumbach K, Selby JV, *et al*. Effect of physician and patient gender concordance on patient satisfaction and preventive care practices. *J Gen Intern Med* 2000;**15**:761–9.
22. **Ponizovsky A**, Ginath Y, Factourovich K, *et al*. The impact of professional adjustment on the psychological distress of immigrant physicians. *Stress Medicine* 1996;**12**:247–51.
23. **Curlin FA**, Lawrence RE, Chin MH, *et al*. Religion, conscience, and controversial clinical practices. *N Engl J Med* 2007;**356**:593–600.
24. **Siegler M**. Searching for moral certainty in medicine: a proposal for a new model of the doctor-patient encounter. *Bull N Y Acad Med* 1981;**57**:56–69.
25. **Wilson N**, Strunk AL. Overview of the 2006 ACOG Survey on Professional Liability, 2006. <http://www.mwww.acog.org/departments/professionalliability/2006surveyNatI.pdf> (accessed 1 Sep 2010).