



# ***The Emotional Impact of Medical Errors on Physicians***

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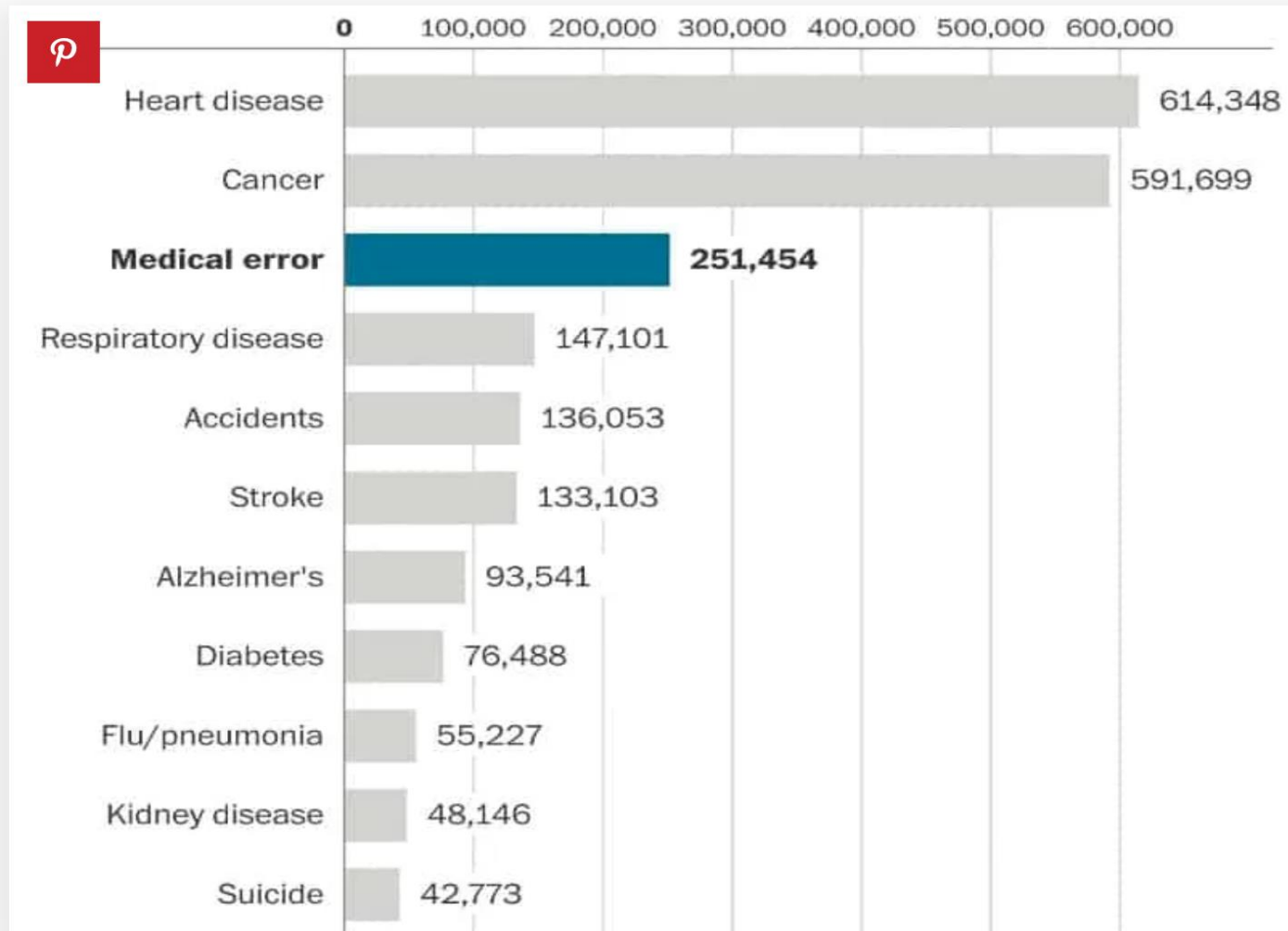




# Medical error



- A **medical error** is a **preventable** adverse effect of care, whether or not it is evident or harmful to the patient. This might include an inaccurate or incomplete **diagnosis** or **treatment** of a disease, injury, syndrome, behavior, infection, or other ailment. Globally, it is estimated that **142,000 people died in 2013** from adverse effects of medical treatment; this is an increase from **94,000 in 1990**. However, a 2016 study of the number of deaths that were a result of medical error in the U.S. placed the yearly death rate in the U.S. alone at **251,454** deaths, which suggests that the 2013 global estimation may not be accurate.

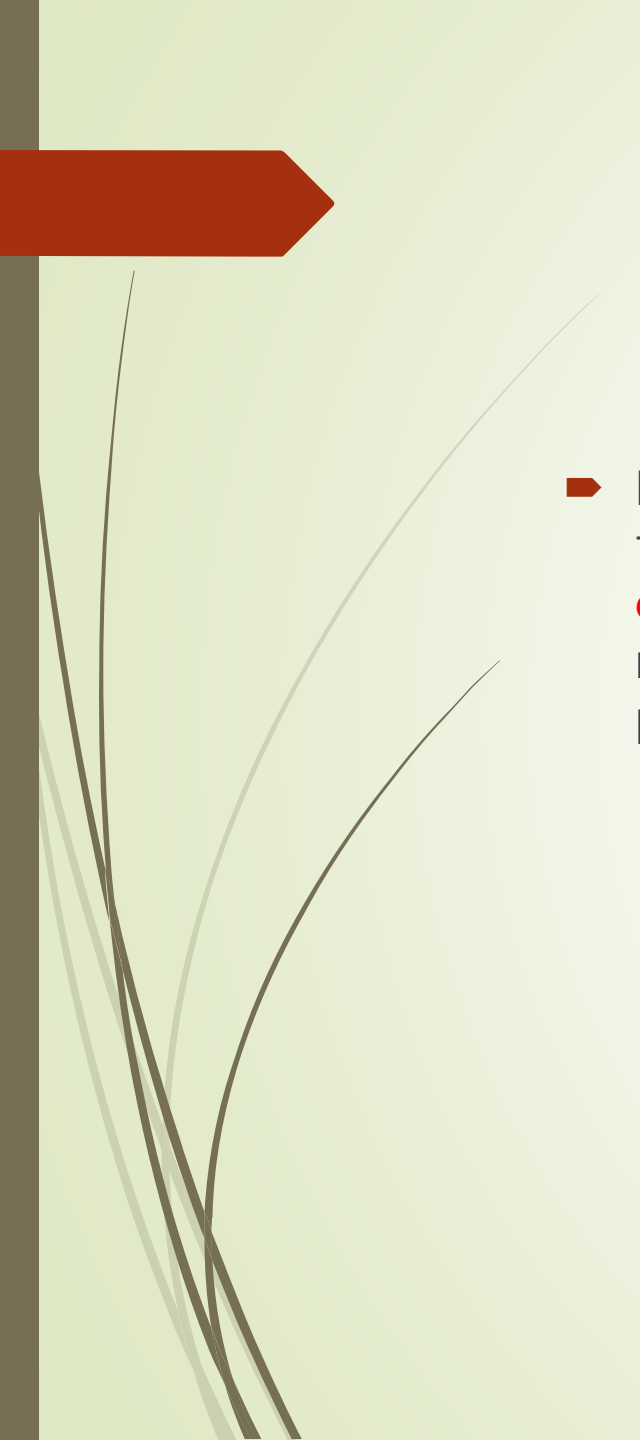
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- In 2018, an **estimated 266,120** new cases of invasive **breast cancer** are expected to be diagnosed in women in the **U.S.**

## Medical Error Statistics



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- Medical errors are unfortunately **inevitable** in complex health care environments
  - Although health care organizations regularly provide patients affected by medical errors and their families with counseling afterwards, **the impact of errors on physicians can sometimes be overlooked**
  - After medical errors, physicians have reported feeling upset, guilty, self-critical, depressed, and scared. Physicians also have reported that their job satisfaction, ability to sleep, relationships with colleagues, and self-worth were negatively affected

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- One aspect of being involved in an error is **deciding whether and how to disclose the error to the patient**. Physicians contemplating disclosure can become concerned about harming the doctor-patient relationship, future job sanctions, and potential malpractice litigation.
  - Getting support after errors also may be difficult for physicians, because they do not commonly use mental health services and report discomfort talking to colleagues about their mistakes.

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- Physicians who are very anxious after an error may lose sleep or have trouble concentrating, which may **increase their risk of making medical errors** in the future. Others may become too cautious in practicing medicine, resulting in reduced access to specific procedures or poorer patient care, or they may retire prematurely.





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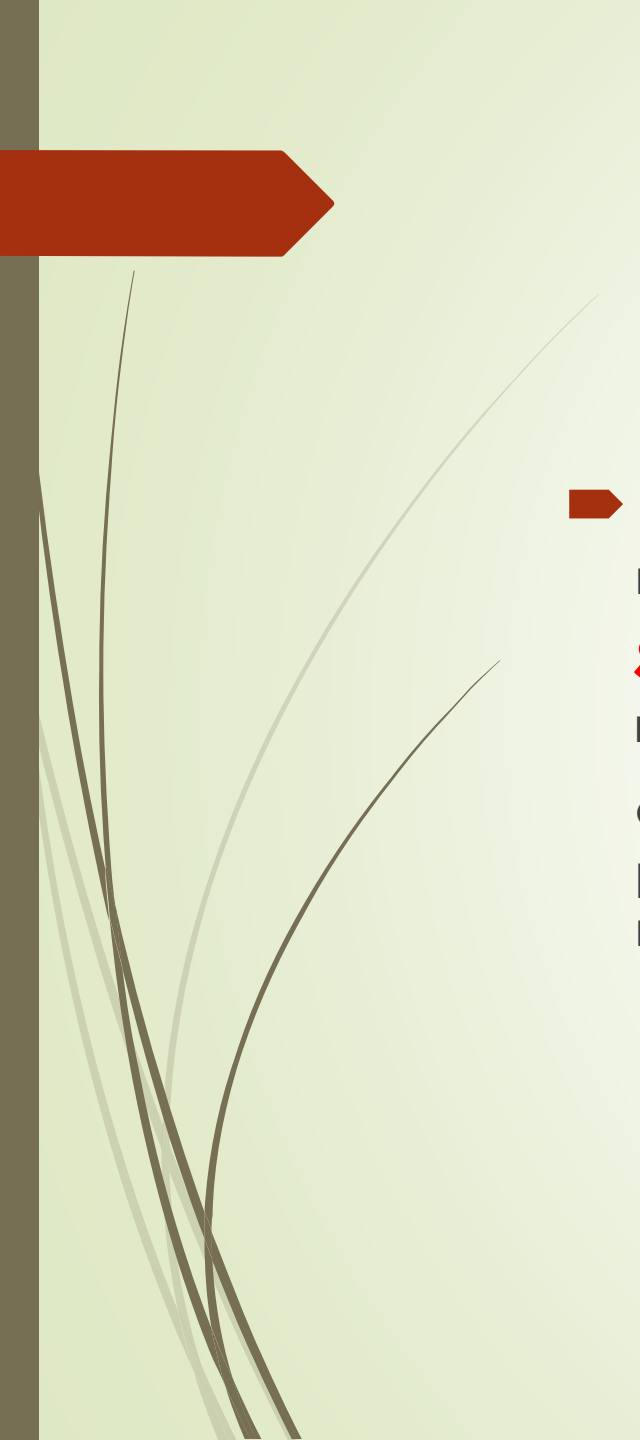
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# Perspective



## Guilty, Afraid, and Alone — Struggling with Medical Error

Tom Delbanco, M.D., and Sigall K. Bell, M.D.





➤ **First**, though it is well recognized that clinicians feel guilty after medical mistake, family members often have similar or even stronger feeling of guilt. **second**, patient and their families may fear further harm, including retribution from health care workers, if they express their feeling or even ask a about mistake they perceive. And **third**, clinicians may turn away from patients who have been harmed, isolating them just when they are most in need.

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- **Patients strongly prefer disclosure of medical errors** (up to 98 percent of patients). It has been demonstrated that disclosure of errors to patients resulted in increased patient satisfaction, reduced likelihood of changing physicians, lower rate of seeking legal advice, reduced litigation, lower legal expenses, and lower jury awards.



# Reasons to Disclose Medical Errors to Your Attending and the Patient

- **Promote patient safety**
- **Build patient trust.**
- **Improve your professional skills**
- **Integrity**
- **Reduce your risk of litigation**
- **Being found out after hiding something is much worse.**



## Reporting Systems

# The Emotional Impact of Medical Errors on Practicing Physicians in the United States and Canada

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Erik Hazel, Ph.D.

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Wendy Levinson, M.D.

Victoria J. Fraser, M.D.

Thomas H. Gallagher, M.D.

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- Between July 2013 and June 2014, physicians in the United States and Canada completed a survey about their experiences with medical errors and error disclosure.
  - QUESTIONNAIRE
  - STATISTICAL ANALYSIS

# Results

- PHYSICIAN CHARACTERISTICS

- Surveys were completed by 3,171 (64% response rate) of the 4,990 eligible

physicians in the United States and Canada. **Ninety-two percent (n = 2,909) of the surveyed physicians had been involved with a near miss, minor error, or serious error.**

Table 1. Demographics of Participating Physicians\*

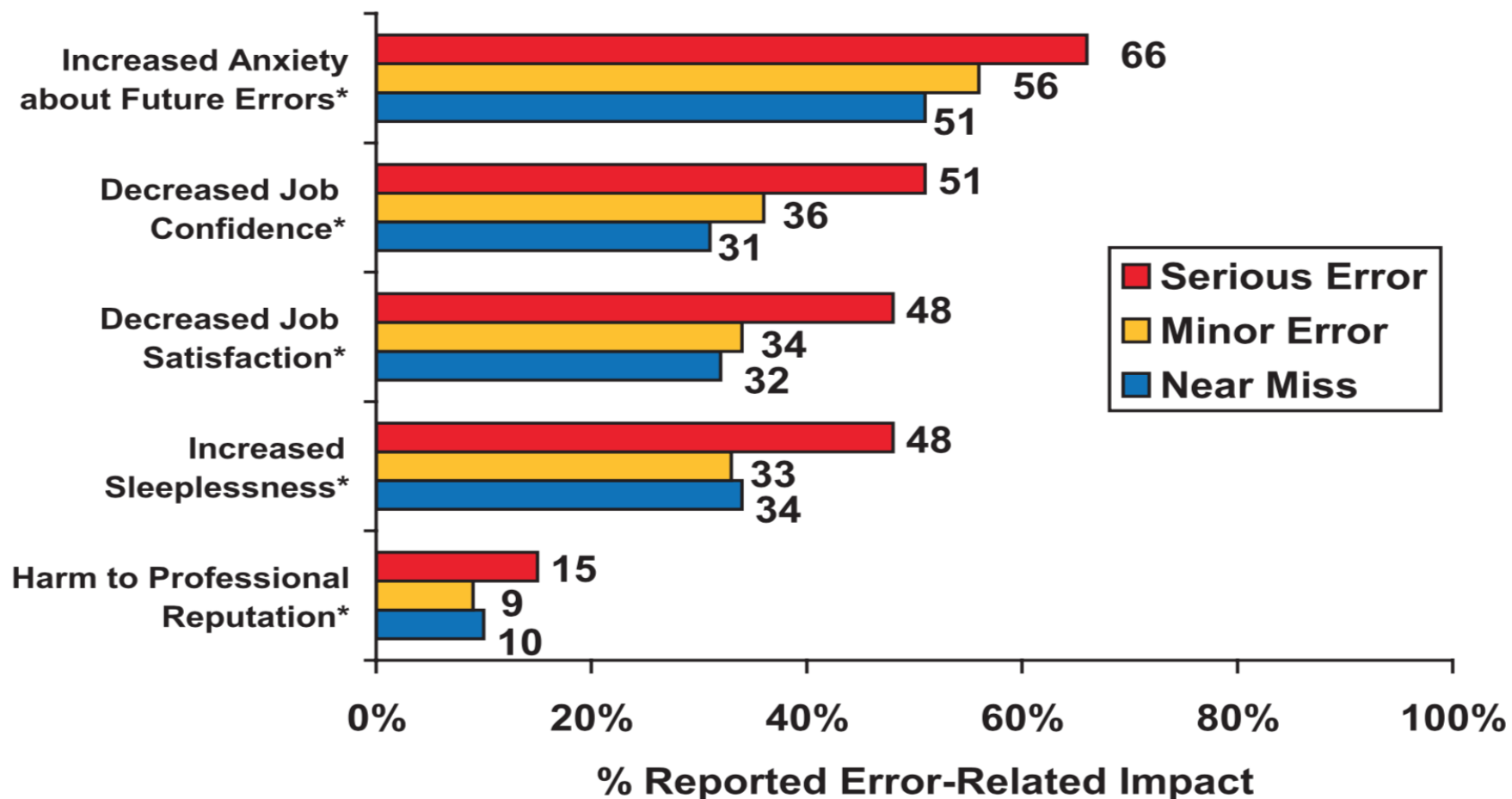
Characteristic	Levels	Physicians % (N)
Total Sample		100% (2,909)
Country	United States	55% (1,600)
	Canada	45% (1,309)
Specialty <sup>†</sup>	Internal Medicine	50% (1,433)
	Surgery	34% (991)
	Pediatrics	16% (456)
Gender	Male	77% (2,203)
Practice Setting	Academic	40% (1,076)
	Private	49% (1,337)
	Other Setting	11% (302)
% of Time in Clinical Practice	1–25%	8% (228)
	26–50%	10% (271)
	51–75%	19% (526)
	76–100%	64% (1,795)
Most Severe Error Involved with	Near Miss	7% (212)
	Minor Error	35% (1,032)
	Serious Error	57% (1,665)
Characteristic	Mean	SD
Average Age (years)	49	10
Years in Practice	16	10

\* SD, standard deviation

<sup>†</sup> 29 respondents did not report a specialty.



## Impact of Errors on Physicians' Life Domains by Level of Error Severity\*





# SUPPORT FOLLOWING ERRORS

- ***Ninety percent of physicians disagreed (37% strongly) that hospitals and health care organizations adequately support them*** in coping with stress associated with medical errors. ***Eighty-two percent of physicians reported that they were somewhat or very interested in counseling after a serious error occurred.***
- More than one third of physicians felt that taking time away from work for counseling was difficult (43%), did not believe that counseling would be helpful (35%), were concerned that what was said in a counseling session would not be kept confidential if they were sued (35%), and were concerned that their counseling history would be placed in their permanent record (34%). In addition, 23% of physicians were concerned that receiving counseling could affect their malpractice insurance costs, and 18% were concerned that they would be judged negatively by their colleagues.



# DISCLOSURE OF ERRORS TO PATIENTS

- Of all surveyed physicians, **89%** reported **never** having disclosed a serious error to a patient, and 54% reported having disclosed a minor error to a patient in the last 12 months.
- Only 18% of the physicians had received education or training on disclosing errors to patients. Overall, 86% were somewhat or very interested in receiving such education or training.



# PHYSICIANS MOST AFFECTED BY ERRORS

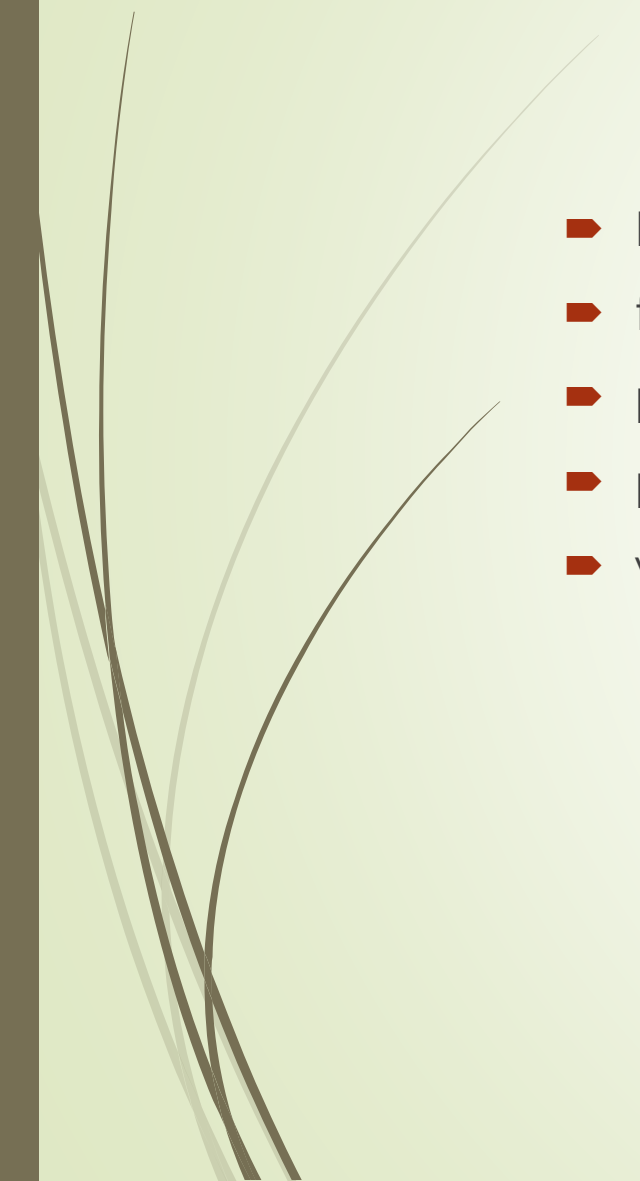
- Physicians who spent more than 75% of their time in clinical practice
  - female physicians
  - physicians who had disclosed an error
  - physicians who thought that their likelihood of being sued was higher
  - who felt unsupported after errors
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Table 2. Factors Associated with Increased Distress Following Errors Among Physicians Involved in Either Near Misses/Minor Errors or Serious Errors

	Physicians Involved in Only Near Misses or Minor Errors* Reporting Increased Distress	Physicians Involved in Serious Errors† Reporting Increased Distress
<b>DEMOGRAPHIC FACTORS</b>		
Female Physicians	N/A‡	1.91 (1.21, 3.02)
Physicians who spent >75% of time in clinical practice	1.45 (1.08, 1.94)	2.20 (1.60, 3.01)
<b>ATTITUDES ABOUT ERRORS/DISCLOSURE</b>		
Physicians who disagreed with the statement, "hospitals support physicians adequately in coping with stress related to errors"	1.95 (1.29, 2.97)	N/A
Physicians who thought the chances are that they would be named in a malpractice suit to be $\geq 5\%$ in the next year (vs. $< 5\%$ )	1.55 (1.06, 2.26)	2.28 (1.50, 3.48)
<b>PAST EXPERIENCE WITH ERRORS</b>		
Physicians who had disclosed a serious or minor error to a patient (vs. not disclosing)	1.49 (1.12, 1.98)	N/A
Physicians who were dissatisfied with how their past serious error disclosure went (vs. not disclosing)	N/A	3.86 (1.66, 9.00)
Physicians who were satisfied with how their past serious error disclosure went (vs. not disclosing)	N/A	1.13 (0.70, 1.83)
<p>* c-statistic = .61, Hosmer Lemeshow goodness of fit, <math>p = .39</math></p> <p>† c-statistic = .67, Hosmer Lemeshow goodness of fit, <math>p = .99</math></p> <p>‡ Although significant at the univariate level for one of the two models, variable listed as not applicable (N/A) either dropped out of the multivariate model or were not relevant to the final model (that is, past serious error disclosure variables for the near miss/minor errors model).</p>		


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*Original Article*

# Medical errors; causes, consequences, emotional response and resulting behavioral change

*Attia Bari<sup>1</sup>, Rehan Ahmed Khan<sup>2</sup>, Ahsan Waheed Rathore<sup>3</sup>*

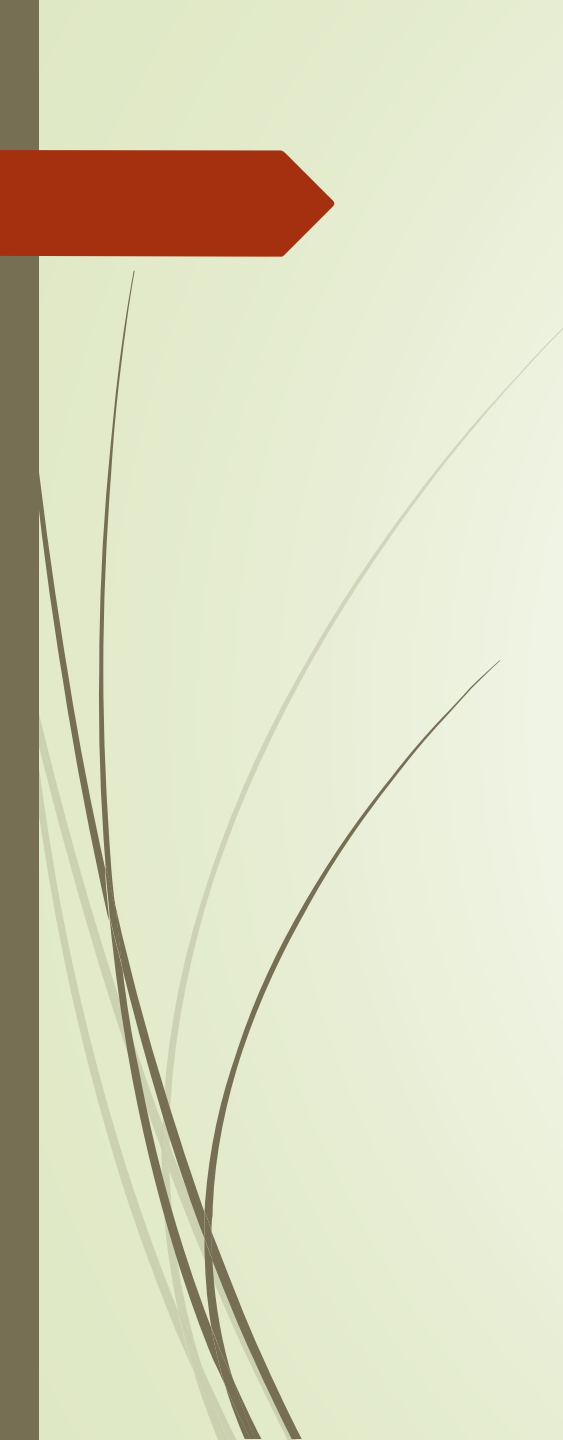




<i>Medical Errors</i>	<i>Percentage</i>
Serious medical error	18%
Minor medical error	48%
Near misses	19%
Never encountered medical error	2%
Not mentioned type of error but mentioned cause and effect	13%



<i>Cause of the medical error</i>	<i>(Who agreed/ strongly agreed) N (%)</i>
<i>Intrinsic</i>	
I did not have enough experience	66 (52%)
I did not possess enough knowledge	51 (40%)
I missed the warning signs	51 (40%)
There was faulty communication	46 (36%)
I was tired/ fatigued due to long duty hours	85 (66%)
I did not ask for advice from senior	27 (21%)
I hesitated too long	13 (10%)
<i>Extrinsic</i>	
I had many other things to take care of	81 (63%)
The case was very complex	61 (48%)
It was an atypical presentation	57 (45%)
There was inadequate supervision	58 (45%)
There was a procedural complication	37 (29%)
Lab report was wrong so resulted in misjudgment	24 (19%)
<i>Disclosure</i>	
To none due to fear / guilt/ embarrassment	27 (21%)
To my colleague present with me on duty	90 (70%)
To my close friend/ spouse	74 (58%)
To my senior / physician involved in the case	73 (57%)
Discussed with some other senior who is not involved in that case	44 (34%)
To patient family or patient	15 (11%)



<i>Responses</i>	<i>(Who agreed/ strongly agreed) n (%)</i>
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*Emotional Response*

*Negative Emotions*

In reaction to error I felt a lot of:

Emotional distress	85 (66%)
Sorrow	89 (70%)
Guilt	88 (69%)
Inadequacy	51 (40%)
Frustration	49 (38%)
Fear	38 (30%)

OR

It was not my fault	20 (16%)
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# Reporting Medical Errors to Improve Patient Safety

## *A Survey of Physicians in Teaching Hospitals*

Lauris C. Kaldjian, MD, PhD; Elizabeth W. Jones, MHSA; Barry J. Wu, MD; Valerie L. Forman-Hoffman, PhD, MPH; Benjamin H. Levi, MD, PhD; Gary E. Rosenthal, MD

**Background:** Collecting data on medical errors is essential for improving patient safety, but factors affecting error reporting by physicians are poorly understood.

**Methods:** Survey of faculty and resident physicians in the midwest, mid-Atlantic, and northeast regions of the United States to investigate reporting of actual errors, likelihood of reporting hypothetical errors, attitudes toward reporting errors, and demographic factors.

**Results:** Responses were received from 338 participants (response rate, 74.0%). Most respondents agreed that reporting errors improves the quality of care for future patients (84.3%) and would likely report a hypothetical error resulting in minor (73%) or major (92%) harm to a patient. However, only 17.8% of respondents had reported an actual minor error (resulting in prolonged treatment or discomfort), and only 3.8% had re-

ported an actual major error (resulting in disability or death). Moreover, 16.9% acknowledged not reporting an actual minor error, and 3.8% acknowledged not reporting an actual major error. Only 54.8% of respondents knew how to report errors, and only 39.5% knew what kind of errors to report. Multivariate analyses of answers to hypothetical vignettes showed that willingness to report was positively associated with believing that reporting improves the quality of care, knowing how to report errors, believing in forgiveness, and being a faculty physician (vs a resident).



**Conclusion:** Most faculty and resident physicians are inclined to report harm-causing hypothetical errors, but only a minority have actually reported an error.

*Arch Intern Med.* 2008;168(1):40-46

# Physician Burnout, Well-being, and Work Unit Safety Grades in Relationship to Reported Medical Errors

Daniel S. Tawfik, MD, MS; Jochen Profit, MD, MPH; Timothy I. Morgenthaler, MD; Daniel V. Satele, MS; Christine A. Sinsky, MD; Liselotte N. Dyrbye, MD, MHPE; Michael A. Tutty, PhD; Colin P. West, MD, PhD; and Tait D. Shanafelt, MD



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- Of 6695 responding physicians in active practice, 6586 provided information on the areas of interest: 3574 (54.3%) reported symptoms of burnout, 2163 (32.8%) reported excessive fatigue, and 427 (6.5%) reported recent suicidal ideation

and 691 of 6586 (10.5%) reporting a major medical error in the prior 3 months

**TABLE 1. Recent Perceived Major Medical Errors and Work Unit Safety Grades<sup>a</sup>**


Variable	All respondents (N=6695)
Major medical error in last 3 months	691 (10.5)
Description of most recent error <sup>b</sup>	679 (10.1)
Error in judgment	266 (39.2)
Wrong diagnosis	136 (20.0)
Technical mistake during procedure	88 (13.0)
Prescribed wrong drug/dosage	55 (8.1)
Ordered medication/intervention for wrong patient	25 (3.7)
Other	109 (16.1)
Outcome of most recent error <sup>b</sup>	663 (9.9)
No effect on patient outcome	367 (55.4)
Caused minor temporary morbidity	150 (22.6)
Caused minor permanent morbidity	13 (2.0)
Caused major temporary morbidity	68 (10.3)
Caused major permanent morbidity	35 (5.3)
Patient died	30 (4.5)

Variable	All (N=6586 [98.4%])	Recent error (n=691 [10.5%])	No recent error (n=5895 [89.5%])	Odds ratio (95% CI) <sup>b</sup>
Burnout				
Emotional exhaustion (scale 0-54; n=6501) <sup>c</sup>				1.05 (1.04-1.05)
Median score	25.0	34.0	24.0	
Low score	2182 (33.6)	100 (14.7)	2082 (35.8)	
Intermediate score	1253 (19.3)	117 (17.2)	1136 (19.5)	
High score	3066 (47.2)	464 (68.1)	2602 (44.7)	
Quality of life <sup>g</sup>				0.81 (0.78-0.84)
Median	8.0	7.0	8.0	
Fatigue <sup>h</sup>	2163 (32.8)	322 (46.6)	1841 (31.2)	1.92 (1.64-2.25)
Suicidal ideation	427 (6.5)	88 (12.7)	339 (5.8)	2.40 (1.87-3.08)
Depressive symptoms	2634 (40.0)	430 (62.2)	2204 (37.4)	2.76 (2.35-3.25)



**TABLE 3. Multivariate Analysis of Factors Associated With Perceived Major Medical Errors**

Model	Predictor	Odds ratio (95% CI) <sup>a</sup>	P value
Multivariate logistic regression <sup>b</sup>	Burnout present (vs absent)	2.22 (1.79-2.76)	<.001
	Fatigued (vs not)	1.38 (1.15-1.65)	<.001
	Work unit safety grade (vs A)		
	Grade B	1.70 (1.36-2.12)	<.001
	Grade C	1.92 (1.48-2.49)	<.001
	Grade D	3.12 (2.13-4.58)	<.001
	Grade F	4.37 (2.06-9.28)	<.001
	Age (for each year older)	0.99 (0.98-1.00)	.009
	Nights on call per week (for each night)	1.04 (1.00-1.08)	.05
	Specialty (vs Internal Medicine) <sup>c</sup>		
	Radiology	2.58 (1.66-4.03)	<.001
	Emergency medicine	1.82 (1.20-2.74)	.005
	Anesthesiology	0.52 (0.27-1.00)	.05
	Psychiatry	0.50 (0.30-0.82)	.007
	Pediatric subspecialty	0.49 (0.26-0.89)	.02

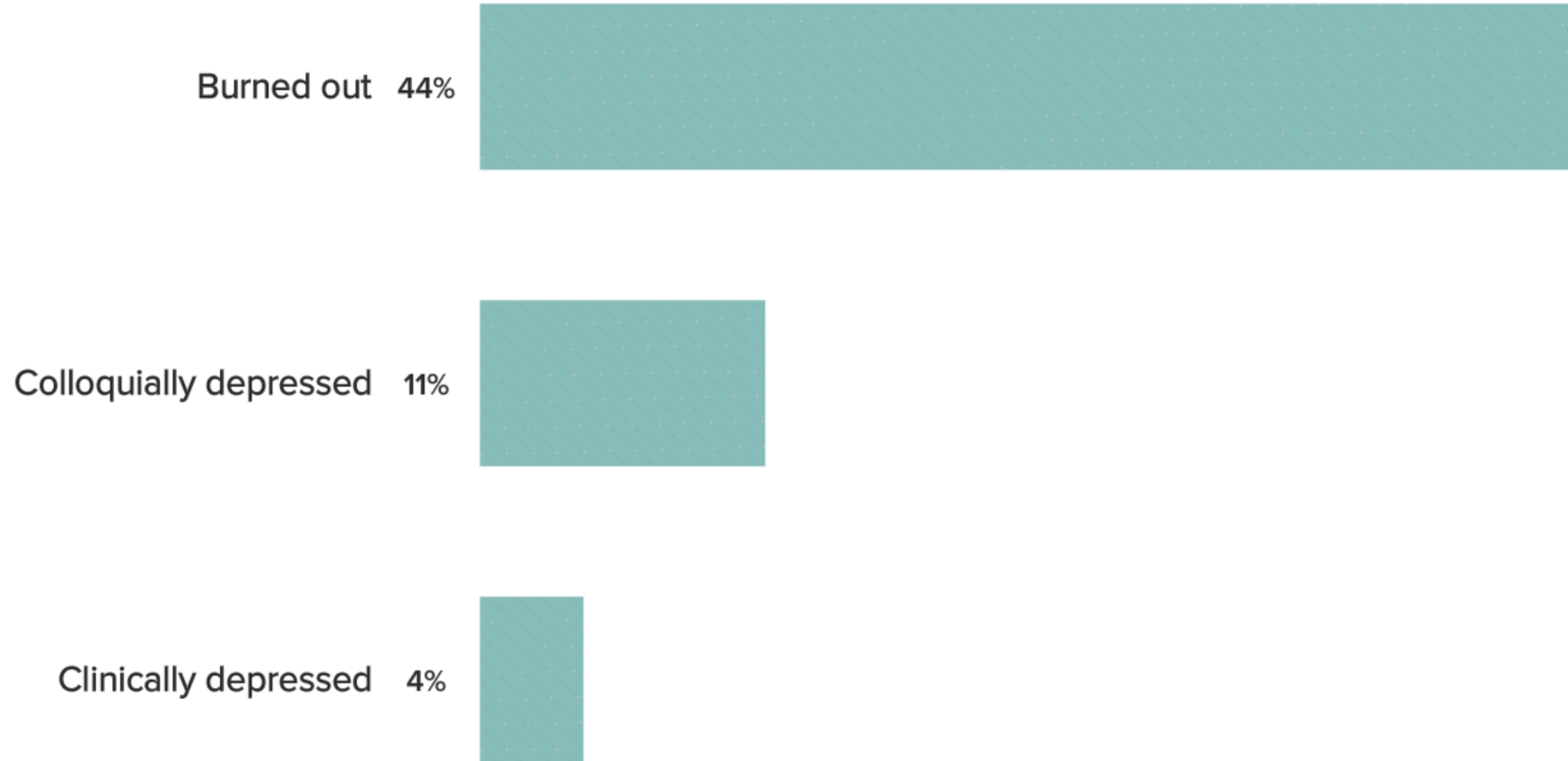


***burnout combines emotional exhaustion, depersonalization, and a sense of reduced personal accomplishment***

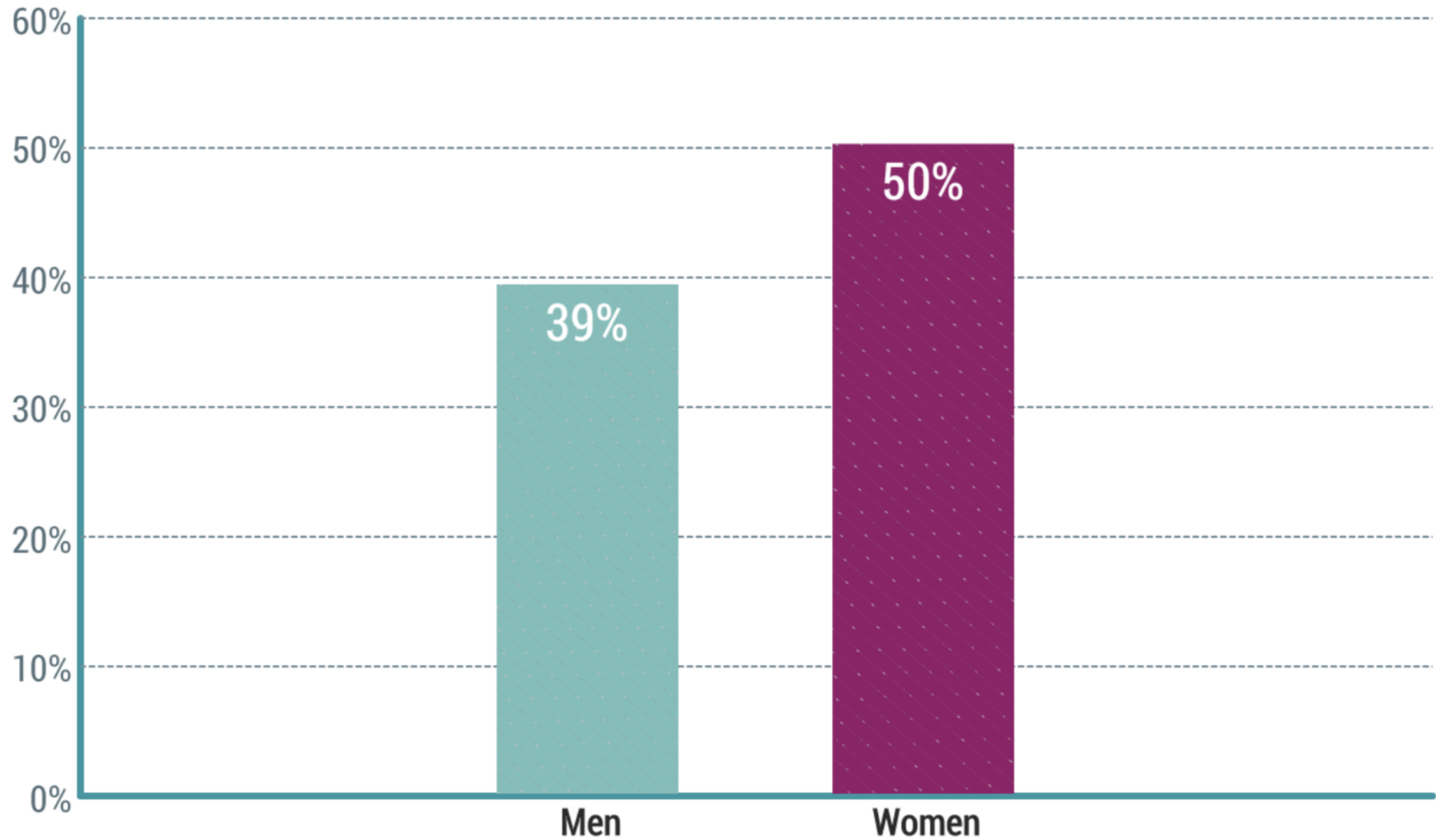
for health care organizations, the cost of burnout comes out to \$7,600 per physician per year

Most authors suggest a prevalence rate of approximately half; twice that of the general working population in the United States and with an estimated cost of roughly **\$5 billion per year** related to reduced clinical productivity and increased physician turnover

# Are Physicians Burned Out or Depressed?

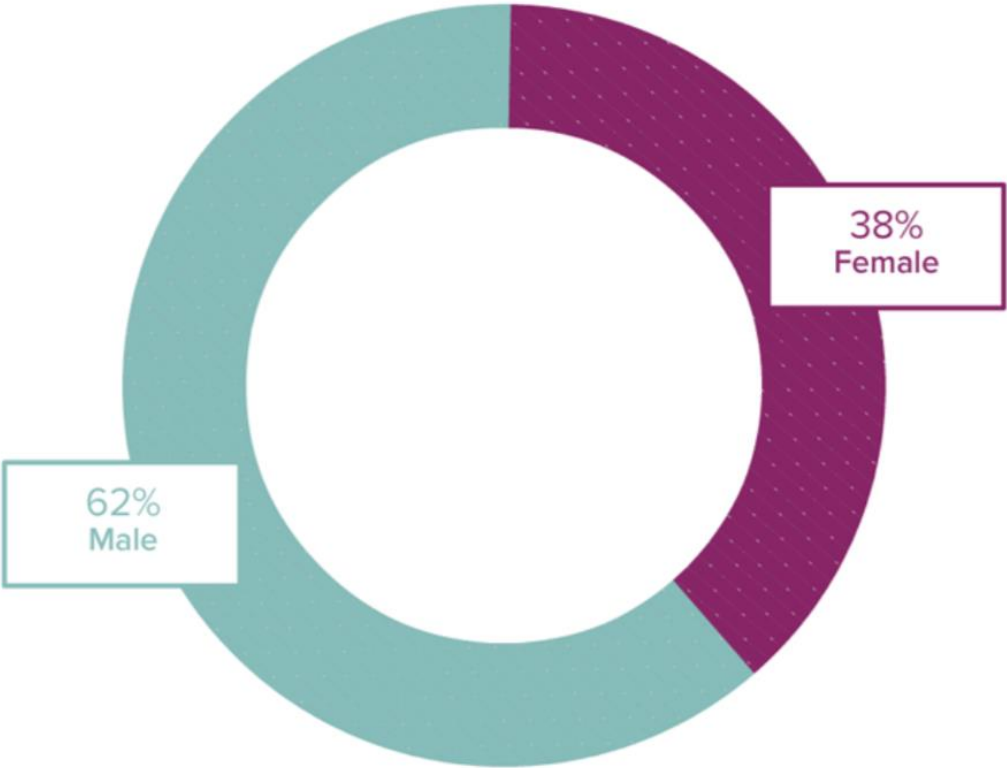


## Are Male or Female Physicians More Burned Out?

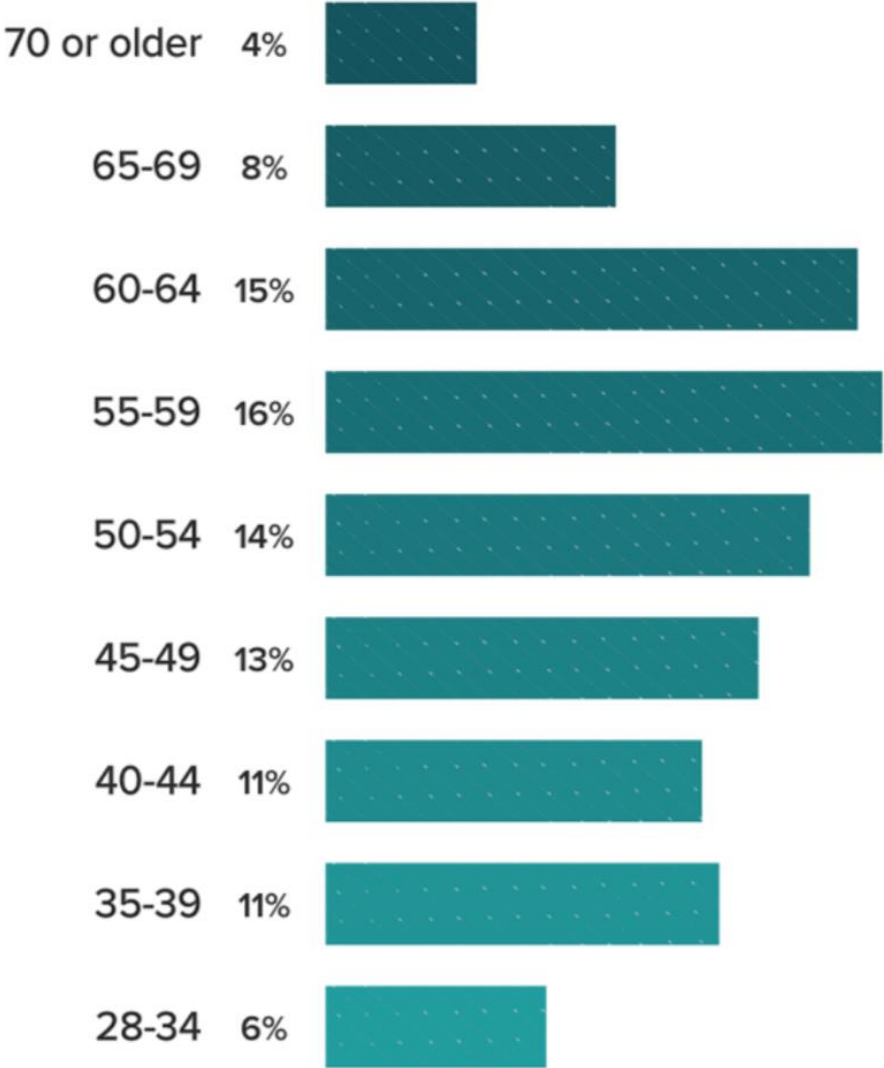


# Survey Demographics

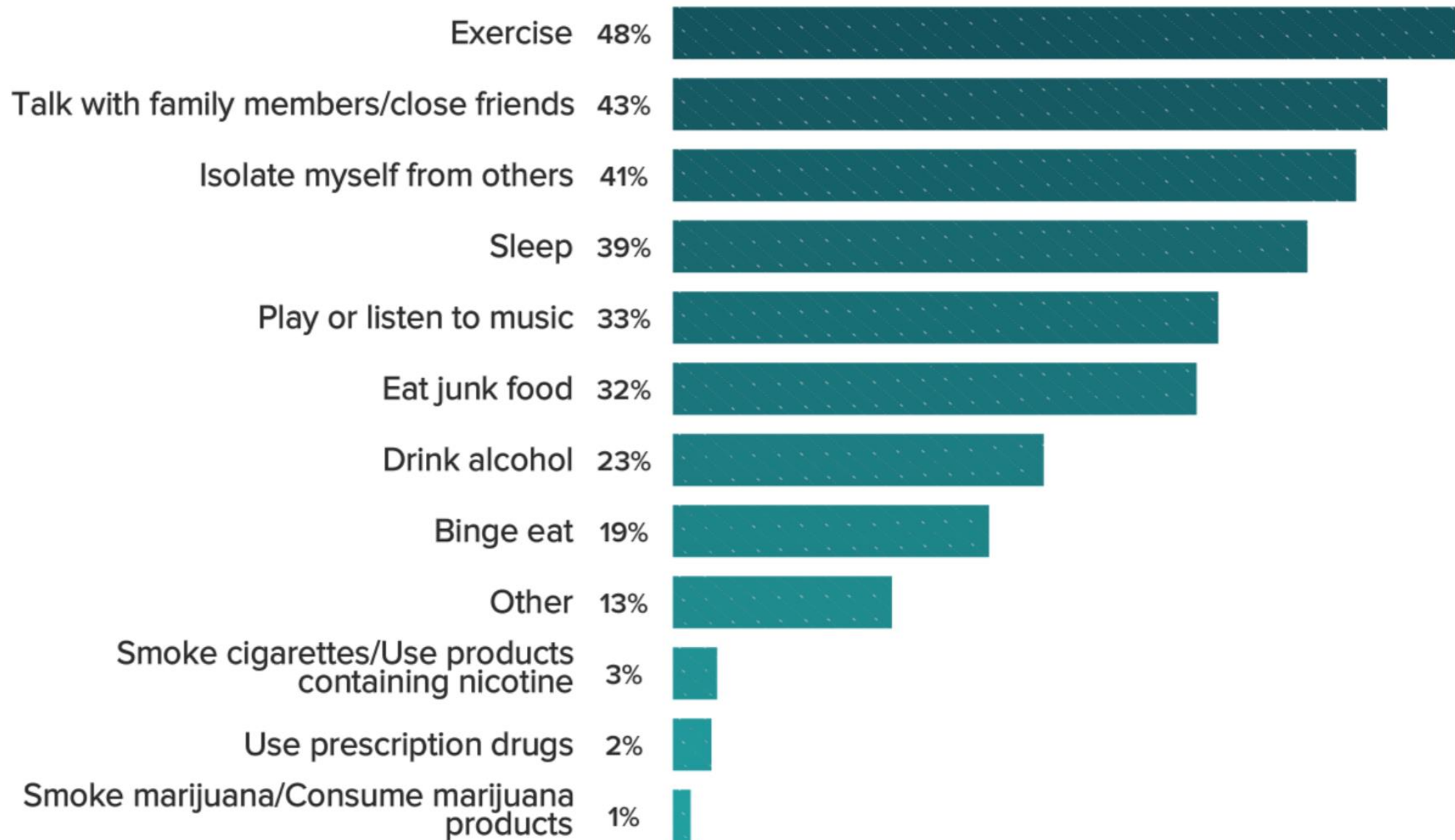
BY GENDER



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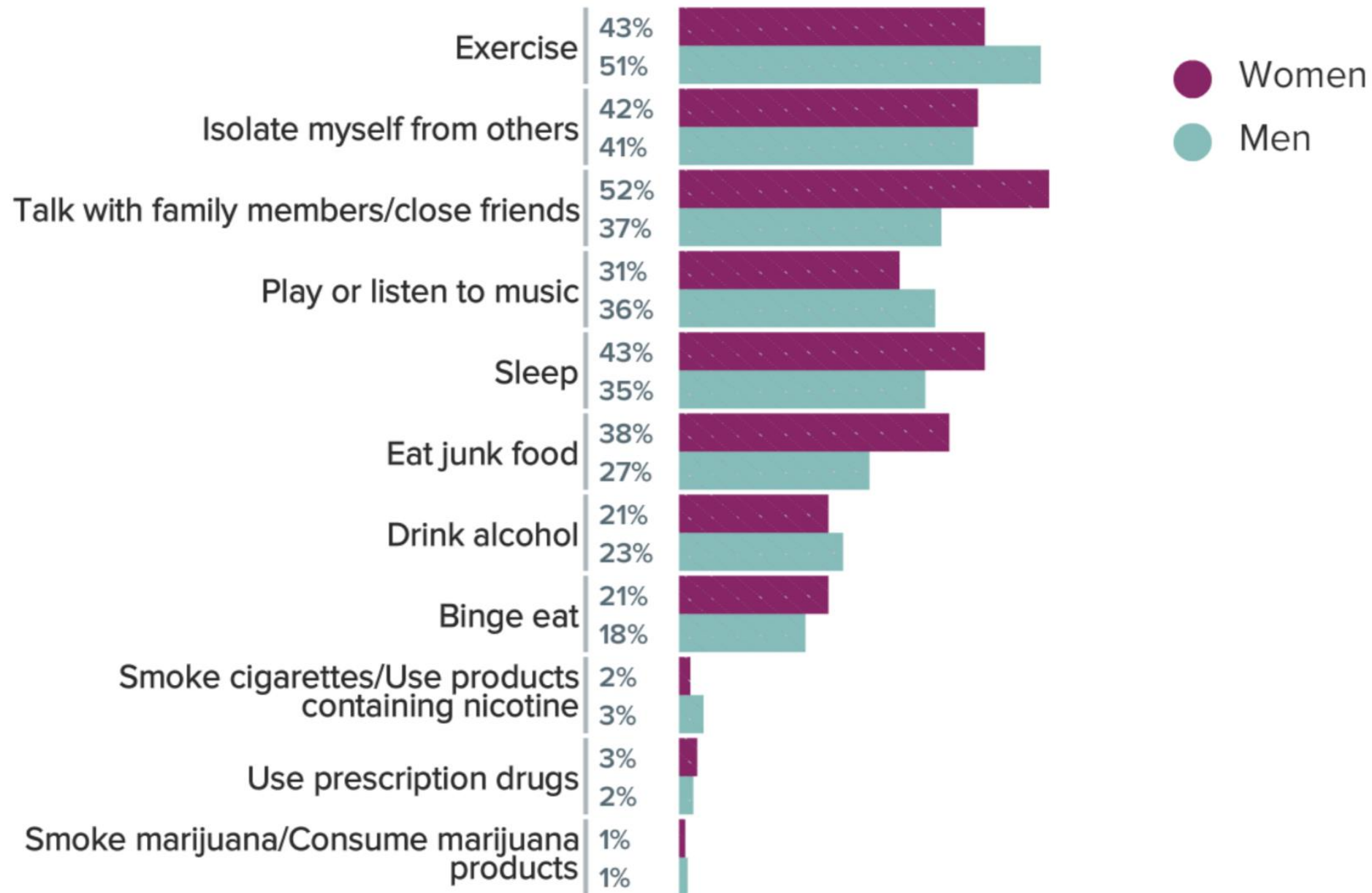


# How Do Physicians Cope With Burnout?



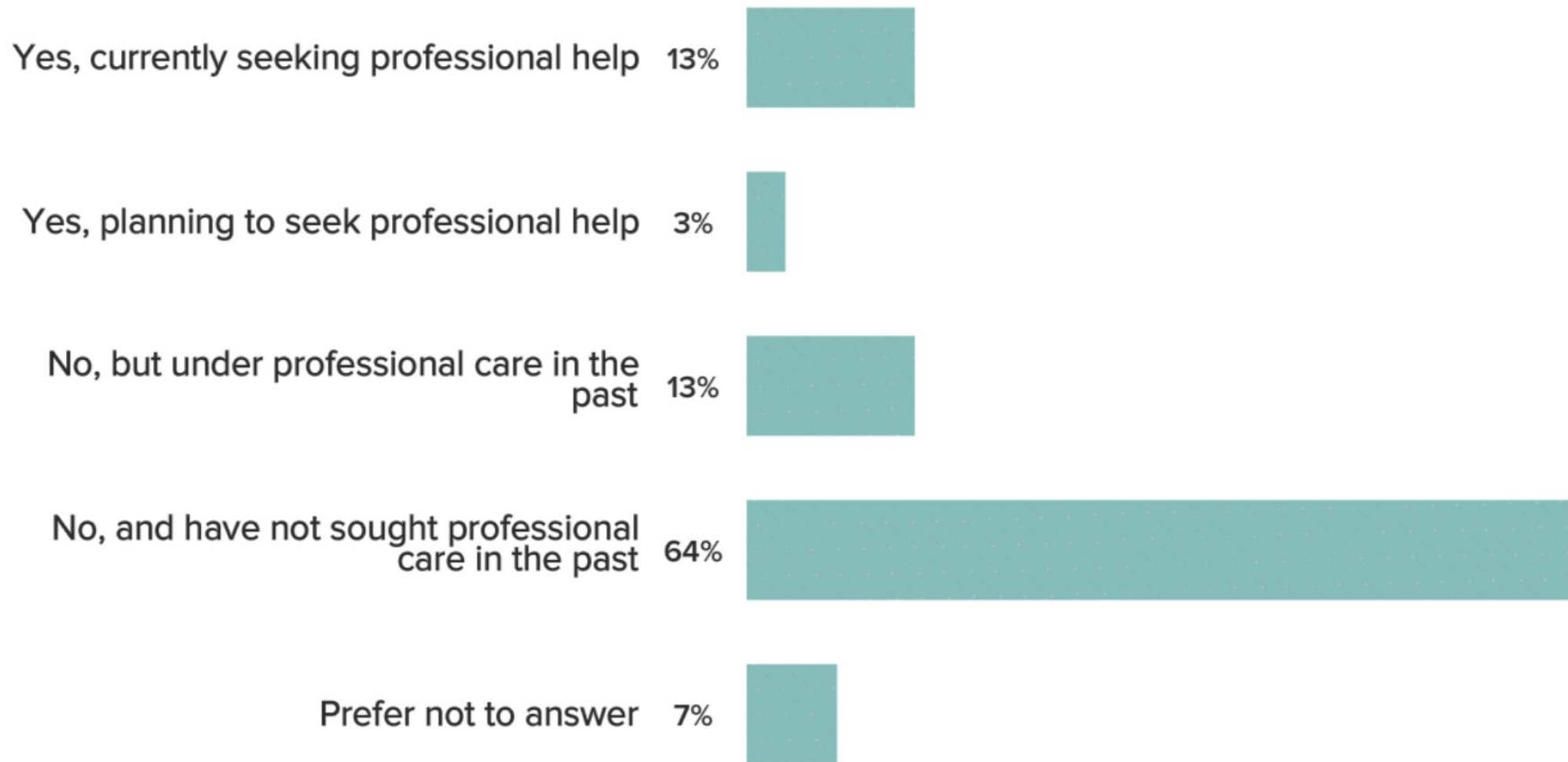


# Do Male and Female Physicians Cope With Burnout Differently?





## Do You Plan to Seek Help for Burnout or Depression?



## Why Have You Not Gotten Help?

Symptoms are not severe enough 50%



I can deal with this without help from a professional 47%



Too busy 39%



Don't want to risk disclosure 20%



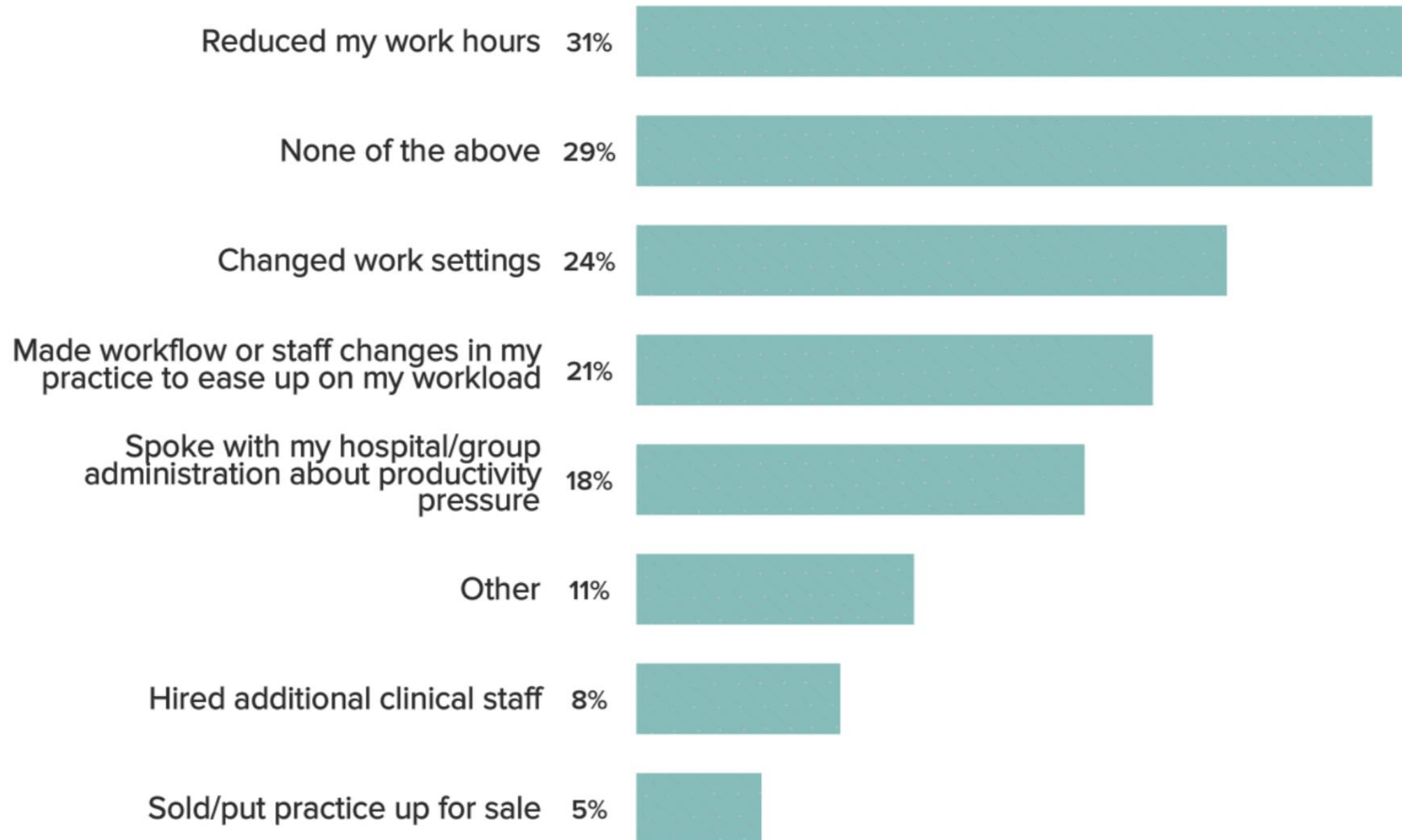
Other 12%



I don't trust mental health professionals 7%



## How Do You Try to Alleviate Your Burnout?



# The five main causes of burnout

## 1. The practice of clinical medicine.

Our practice is the classic high-stress combination of great responsibility and little control. We are dealing with hurt, sick, scared, dying people, and their families.

## 2. Your specific job

## 3. Having a life

In an ideal world, your personal life is the place where you recharge

We are not taught life balance skills in our medical education. In fact, our residency training teaches us just the opposite  
Multiple situations could arise at home that eliminate the opportunity to recharge your energy account.


#### 4. The conditioning of our medical education.

double-edged sword. The same traits responsible for our success as physicians simultaneously set us up for burnout down the road.

- Workaholic – Your only response to challenges or problems is to work harder,
- Superhero – You feel like every challenge or problem sits on your shoulders and you must be the one with all the answers,
- Perfectionist – You can't stand the thought of making a mistake – *ever* – and hold everyone around you to the same standard,
- Lone ranger – You must do everything yourself and end up micromanaging everyone around you.

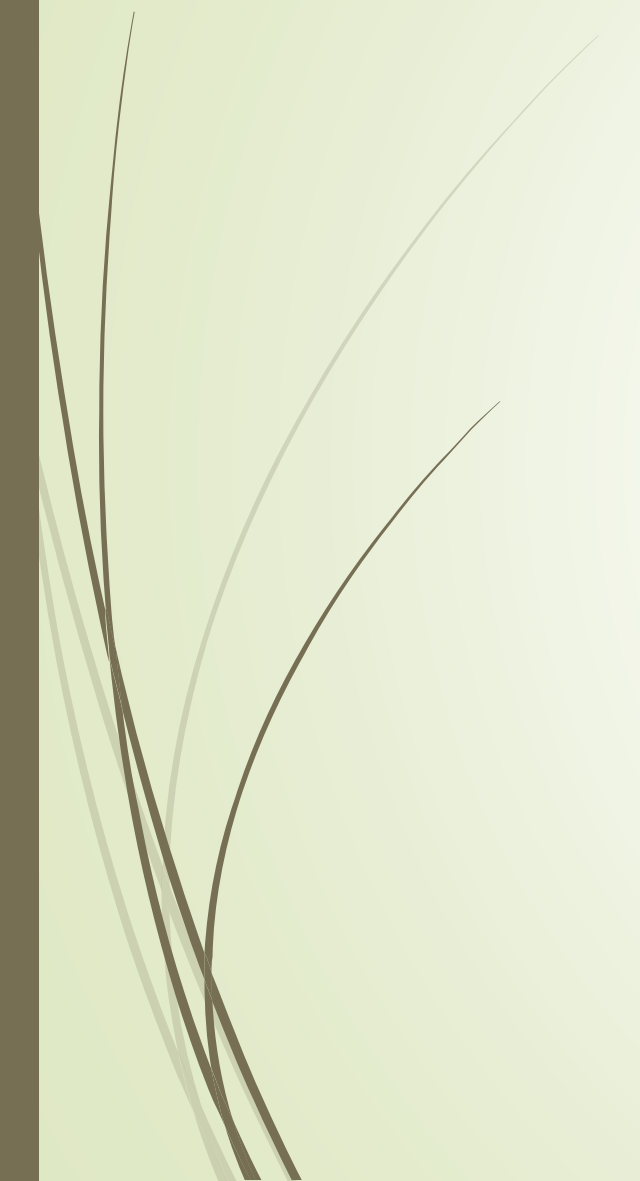
**The patient comes first.**

**Never show weakness.**



## **5. The leadership skills of your immediate supervisors.**

There is wide acceptance that your work satisfaction and stress levels are powerfully affected by the leadership skills of your immediate supervisor.







***“Put on your own  oxygen mask before assisting others.”***





TM

Better practice.  
Healthier patients.  
Rewarding career.

**THE LAST WORD** (<https://www.aafp.org/fpm/viewRelatedDepartmentsByDepartment.htm?departmentId=23&page=0>)

## Five Ways to Respond to a Medical Mistake

**1. Acknowledge your mistake to the patient or family.**

**2. Discuss the situation with a trusted colleague.**

**3. Seek professional advice.**

**4. Review your successes and accomplishments in medicine.**



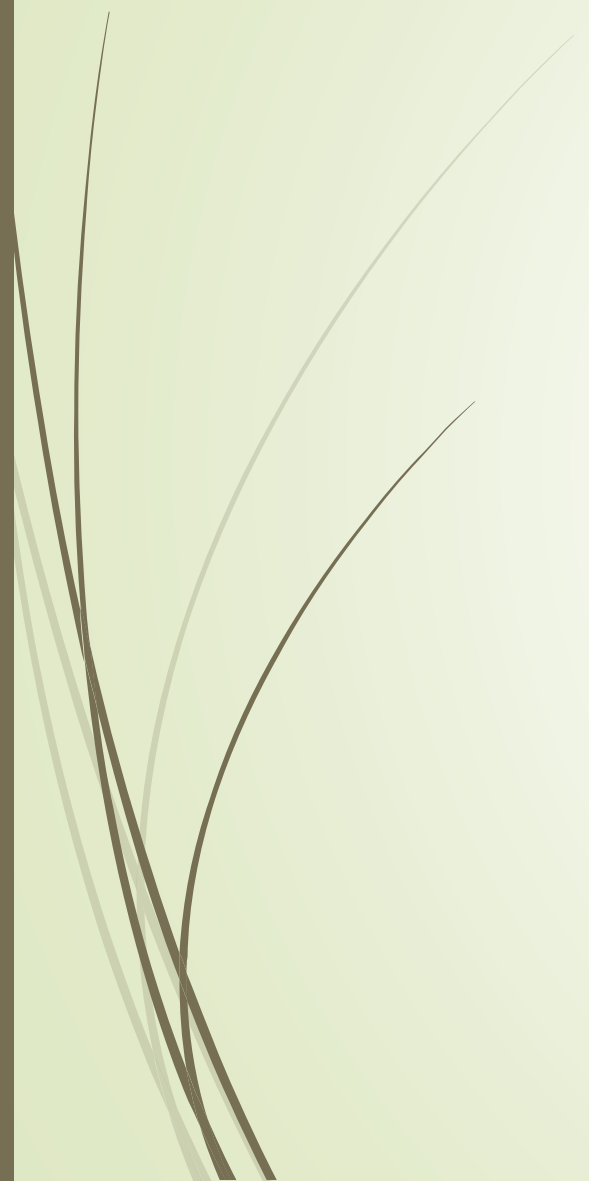
**5. Don't forget basic self-care.**









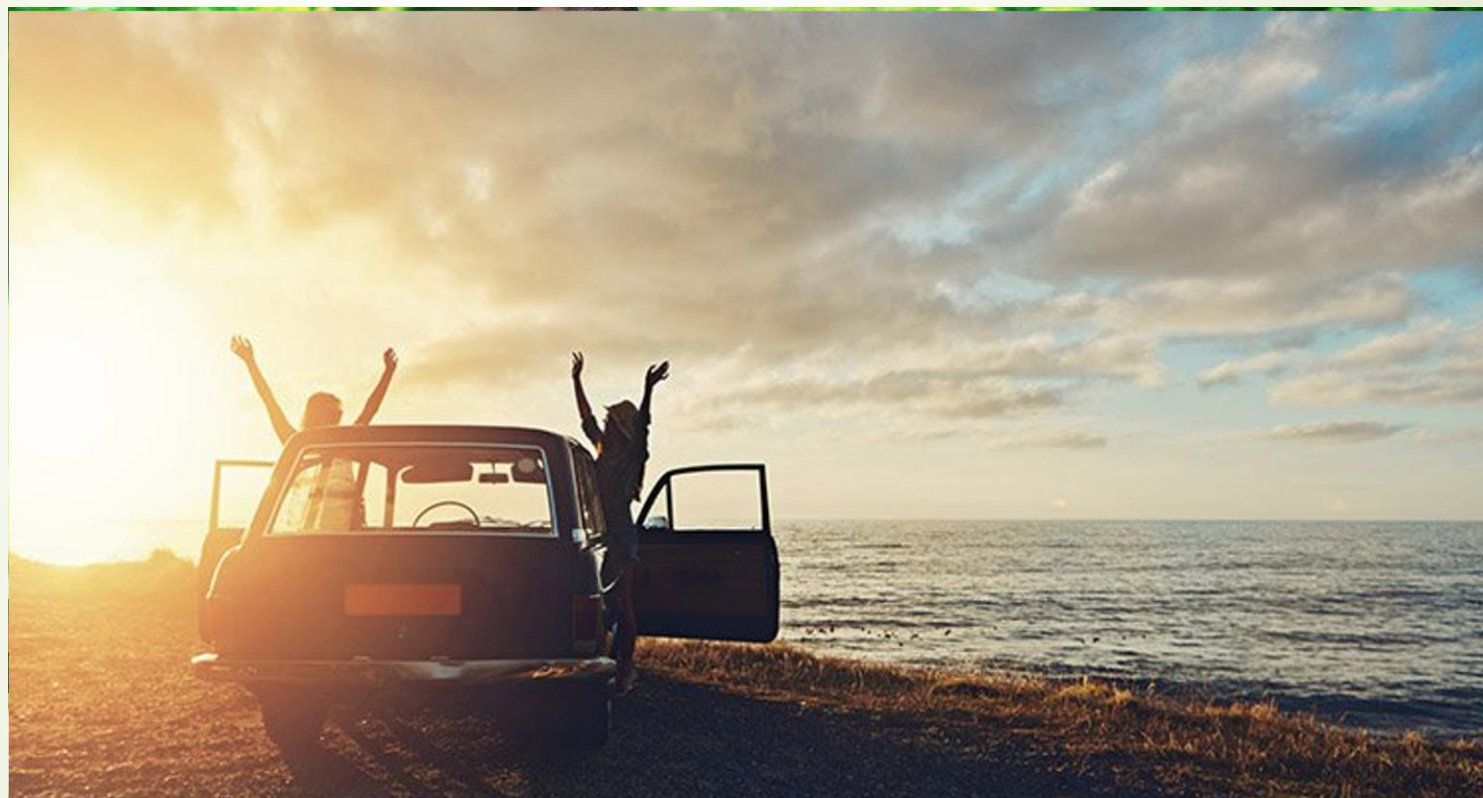






















"US Soldier Tenderly Kissing His Girlfriend  
Goodbye Before Departing By Train, 1922"

