The Relationship between Physician Burnout and Patient Perception of Time Spent at Bedside

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Introduction

In the Current Literature:

• Physician burnout affects more than 50% of physicians in the United States.
• Burnout affects physicians in all stages of their medical career, in all practice settings, and in all specialties.
• Burned out physicians have two-fold higher risk of leaving the institution, with turnover replacement and reduced productivity costing $4.6 billion annually in the United States.
• Physicians with burnout have higher rates of drug and alcohol use, depression, and suicidal ideation in comparison to physicians without burnout.
• Physicians with high level of burnout perceived themselves to have significantly higher rates of medical errors.

What is Unknown:

• Physician burnout’s relationship with the quality of patient care is ambiguous.
• No relationship between burnout and the rate of medical errors when studied objectively, contrary to prior studies.
• Patient perception of the quality of care is important as shown by strong correlation between patient-reported satisfaction with their physicians and patient outcomes.
Methods

Measuring Bedside Time Spent:
- Patient survey
- One question that asked: “How much time did your physician spend with you today?”
- Patients chose from one of the four categories: 1) between 0 and 5 min, 2) between 6 and 10 min, 3) between 11 and 15 min or, 4) more than 15 min.

Measuring Physician Burnout:
- Oldenburg Burnout Inventory (OBI), a 16-item questionnaire
- OBI defines burnout by two domains: disengagement and exhaustion.
- The opposite of burnout is engagement, with its two domains: dedication and vigor.
- Previously defined OBI cutoff values for the two domains: Exhaustion ≥ 2.25, Disengagement ≥ 2.10
- Physicians identified as No Burnout or one of the four burnout outcomes: Exhaustion only (BOEX), Disengagement only (BODE), Any domain exhaustion or disengagement (BOAD), Both domains exhaustion and disengagement (BOBD).

Statistical Calculations:
- t-test, ANOVA, and chi-square for patient and physician population demographics.
- Due to the ordinal nature of the dependent variable, patient perception of time spent by physicians at bedside, we used ordered logistic regression.
Results

- Female physicians reported more burnout ($P < 0.05$).
- No difference seen with physician race.

- Burned out physicians attended to fewer patients ($P < 0.05$).
- For the null hypothesis to be true, the proportion of burned out physicians (46.3%) should be statistically different than the proportion of patients seen by those physicians (42.5%).
- The null hypothesis was false.

### Physician Characteristics by Physician Burnout

<table>
<thead>
<tr>
<th>Physician Burnout*</th>
<th>No Burnout</th>
<th>Burnout</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians (N=95)</td>
<td>51 (53.7%)</td>
<td>44 (46.3%)</td>
<td>0.47</td>
</tr>
<tr>
<td>Female, $n$ (%)</td>
<td>12 (23.5%)</td>
<td>19 (41.9%)</td>
<td>0.04</td>
</tr>
<tr>
<td>Caucasian, $n$ (%)</td>
<td>32 (65.3%)</td>
<td>34 (76.7%)</td>
<td>0.12</td>
</tr>
<tr>
<td>Exhaustion ($SD$)</td>
<td>2.07 (0.41)</td>
<td>2.80 (0.33)</td>
<td>$&lt;0.001$</td>
</tr>
<tr>
<td>Disengagement ($SD$)</td>
<td>1.98 (0.37)</td>
<td>2.57 (0.45)</td>
<td>$&lt;0.001$</td>
</tr>
</tbody>
</table>

*Physician burnout for this table was defined as burnout in both domains with cutoff values: 2.25 (exhaustion), 2.10 (disengagement)

### Patient Population Characteristics by Physician Burnout

<table>
<thead>
<tr>
<th>Physician Burnout*</th>
<th>No Burnout (N=51)</th>
<th>Burnout (N=44)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients (N=1374)</td>
<td>790 (57.5%)</td>
<td>584 (42.5%)</td>
<td>0.005**</td>
</tr>
<tr>
<td>Age, $n$ (%)</td>
<td>54.1 (16.7%)</td>
<td>54.0 (16.6%)</td>
<td>0.94</td>
</tr>
<tr>
<td>Female, $n$ (%)</td>
<td>397 (52.2%)</td>
<td>311 (54.3%)</td>
<td>0.44</td>
</tr>
<tr>
<td>Caucasian, $n$ (%)</td>
<td>598 (78.6%)</td>
<td>452 (78.9%)</td>
<td>0.89</td>
</tr>
</tbody>
</table>

*Physician burnout for this table was defined as burnout in both domains with cutoff values: 2.25 (exhaustion), 2.10 (disengagement)

**The null hypothesis here is that the proportion of patients seen by burned out physicians (42.5%) is the same as the proportion of burnout amongst physicians (46.3%).
Results

- 4 burnout outcomes:
  - BOEX: Engagement only
  - BODE: Disengagement only
  - BOAD: Any domain, exhaustion or disengagement
  - BOBD: Both domains, exhaustion and disengagement

- Adjusted for confounders:
  - Patient age
  - Patient gender
  - Patient race
  - Physician gender
  - Physician race

- We found no relationship between patient perception of time spent and the presence of physician burnout.
**Discussion**

**Results:** The extent of physician burnout does NOT affect the amount of time that physicians spend at patient’s bedside.

- Our results validated the current literature’s findings of the high prevalence of burnout among physicians as well as higher prevalence of burnout among female than male physicians.
- Physicians with burnout attended to fewer patients than physicians without burnout.
- Physicians with high levels of burnout are expected to spend less time at bedside due to high exhaustion and disengagement.
- However, spending significant amounts of time at bedside would likely result in increased exhaustion among physicians.

**Possible Mechanisms:**

- Physicians are highly trained individuals who, despite feeling burned out, take their professional responsibilities as the highest priority.
- Physicians maintain a high level of professionalism and continue to exhibit strong work ethic and their patients do not perceive any difference in time spent at bedside time by the level of their burnout.
- Burnout may result from physicians who take on a high non-clinical load (ie. research or academic responsibilities), rather than as a result of their clinical work.

**Implications:**

- While burnout affects physicians themselves adversely, it might not affect patient perceptions of care provided by those physicians.
- Despite the high levels of burnout, their physicians continue to provide high levels of clinical care.
- Physicians may be able to maintain a high level of professionalism while facing burnout.
- Our study also highlights the importance of objective measurement of outcomes in physician burnout research to determine the extent to which burnout affects patient-reported outcomes.
- Furthermore, our study’s association between physician burnout and smaller patient loads may suggest that non-clinical work is a risk factor for physician burnout.