

## Supplemental Digital Appendix 1

### Survey Questionnaire

**Note:** The moral courage scale items were embedded into a much larger questionnaire about “speaking up” about patient safety concerns and patient safety culture. The larger questionnaire addressed several different research aims/study foci including assessment of patient safety climates and professionalism climates. Appendix 1 presents all the sections of the questionnaire relevant to the present study.

#### INTRODUCTION

Please read the instructions at the beginning of each section carefully.

**Please answer each question honestly. Neither the investigators nor residency or hospital leadership will have access to any individual's results.**

**Instructions:** Please answer the following questions about your last month on an inpatient service.

**Patient safety breach** refers to an act or omission that unnecessarily increases the risk of accidental or preventable injuries produced by medical care.

**Examples include but are not limited to:** unrecognized contamination of a sterile field; failure to adhere to contact precautions or proper hand hygiene; disregarding drug interaction warnings without adequate knowledge of risk involved; performing or supervising a procedure when inadequately prepared or trained to do so; disregarding safety rules (e.g., procedural time out); incomplete pass off between providers.

**1. During your last month on an inpatient service, how many times did you:**

	<u>0</u>	<u>1-2</u>	<u>3-4</u>	<u>5-6</u>	<u>≥6</u>
a. Observed a patient safety breach?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Discussed the patient safety breach you observed with the person(s) involved?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Instructions:** Please indicate the extent of your agreement or disagreement with each of the following statements.

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1. An important component of the relationship with my patients is my understanding of	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

their emotional status, as well as that of their families.

- |   |                          |                          |                          |                          |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 2. I try to understand what is going on in my patients' minds by paying attention to their non-verbal cues and body language. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. I believe that empathy is an important therapeutic factor in medical or surgical treatment.                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Empathy is a therapeutic skill without which success in treatment is limited.  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. My patients value my understanding of their feelings which is therapeutic in its own right.                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. My patients feel better when I understand their feelings.  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

The above six items of the Jefferson Scale of Physician Empathy are used with permission from the Center for Research in Medical Education and Health Care, Sidney Kimmel Medical College at Thomas Jefferson University.

**Instructions:** Please indicate the extent of your agreement or disagreement with each of the following statements.

- |   | Strongly Disagree        | Moderately Disagree      | Slightly Disagree        | Neither Agree Nor Disagree | Slightly Agree           | Moderately Agree         | Strongly Agree           |
|---|--------------------------|--------------------------|--------------------------|----------------------------|--------------------------|--------------------------|--------------------------|
| 1. I am determined to do the right thing for my patients.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. My patients and colleagues can rely on me to exemplify moral behavior.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. When faced with ethical dilemmas in patient care, I consider how both my professional values and my personal values apply to the situation before making decisions.        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. I do what is right for my patients, even if I experience opposing social pressures (e.g., opposition from senior members of the healthcare team, medical guidelines, etc). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. I use a guiding set of principles from my profession to help determine the right thing to  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

do for my patients.							
6. I do what is right for my patients, even if it puts me at risk (e.g., legal risk, risk to reputation, etc).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. To avoid conflict with others, I do not bring forward ethical concerns regarding my patients' care.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I follow the law regardless of whether it is the right thing to do for my patient.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I do what is right for my patients because it is the ethical thing to do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I go above and beyond what is required to do what is right for my patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I can be swayed from doing the right thing for my patients by fear or anxiety.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. When I do the right thing for my patients, my motives are pure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Instructions:** Please answer the following demographic questions.

- Age range?**
  - <25
  - 25-29
  - 30-34
  - 35-39
  - 40+
- Your gender?**
  - Female
  - Male
- What institution is your residency program affiliated with?<sup>a</sup>**
  - Study site A
  - Study site B
  - Study site A/B, dual affiliation
- What is the specialty of the residency program you are currently in?**
  - Medical [Includes internal medicine, med-peds, med-derm, med-genetics, med-anesthesia]
  - Surgical [Includes general surgery, obstetrics and gynecology, orthopedic surgery, plastic surgery, urology]

5. **What is your level of training?**

- PGY-1
- PGY-2
- PGY-3
- PGY-4
- PGY-5
- PGY-6
- PGY-7 or greater

6. **To what extent do you consider yourself a religious person?**

- Not at all religious
- Somewhat religious
- Moderately religious
- Very religious

<sup>a</sup>We do not mention the sites by name in this published report. We wish to keep them anonymous.

## Supplemental Digital Appendix 2

### Factor Loadings, Internal Consistency, Mean Likert-scale Scores, and Item–Total Score Correlations of Six Jefferson Scale of Physician Empathy “Perspective Taking” Items for 352 Interns and Residents, 2013<sup>a</sup>

Item	Factor <sup>b</sup>		
	1	Mean (SD)	R <sup>c</sup>
1. An important component of the relationship with my patients is my understanding of their emotional status, as well as that of their families.	0.84	6.24 (1.03)	0.77
2. I try to understand what is going on in my patients' minds by paying attention to their non-verbal cues and body language.	0.86	6.28 (0.96)	0.80
3. I believe that empathy is an important therapeutic factor in medical or surgical treatment.	0.87	6.44 (0.88)	0.81
4. Empathy is a therapeutic skill without which success in treatment is limited.	0.80	5.94 (1.21)	0.71
5. My patients value my understanding of their feelings which is therapeutic in its own right.	0.87	6.03 (1.08)	0.81
6. My patients feel better when I understand their feelings.	0.87	6.24 (0.97)	0.80

Supplemental digital content for Martinez W, Bell SK, Etchegaray JM, Lehmann, LS. Measuring moral courage for interns and residents: Scale development and initial psychometrics. Acad Med.

Eigenvalue	4.37
% variance	73%
Alpha reliability estimate	0.92

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<sup>a</sup>The six “perspective-taking” items of the Jefferson Scale of Physician Empathy are used with permission from the Center for Research in Medical Education and Health Care, Sidney Kimmel Medical College at Thomas Jefferson University

<sup>b</sup>Rotation not possible with 1 factor.

<sup>c</sup> $r$  = All of the item–total score correlations are statistically significant ( $P < .001$ ).