

My Patient?

A Patient Care Ownership Scale for Medical Students

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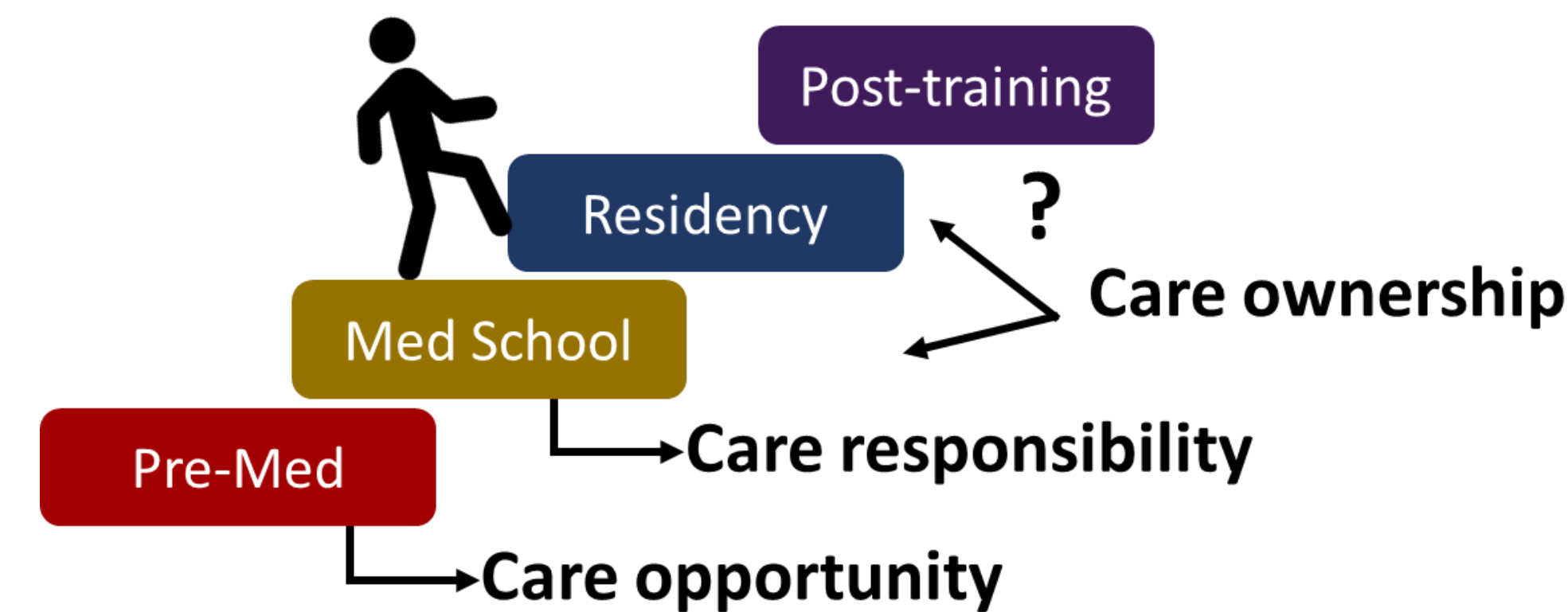
⁴Denver Health

Background & Rationale

- Patient care ownership is prerequisite to quality medical care, yet it is perceived to be in decline among trainees¹



- Psychological ownership is a well-studied phenomenon in cognitive psychology and a burgeoning area of study in GME²⁻⁴
- Little is known about patient care ownership in medical students. Might it represent an educational milestone developed medical school?



Objective:

To gather validity evidence for an adapted patient care ownership scale in post-clerkship medical students.

Methods

Scale adaptation

- Recently published patient care ownership scale⁵ with internal validity evidence for GME was adapted for clinical medical students
- The modified scale was iteratively revised then pilot tested and cognitive interviews conducted to gather evidence for content validity
- Items revised according to thematic analysis from think-aloud approach with scripted verbal probing

Survey administration

- Administered to all 3rd year medical students at the University of Colorado after the principal clerkship year as part of a comprehensive end-of-phase survey

Exploratory factor analysis

- Performed to explore the empirical dimensionality of the scale when applied to medical students; original scale for GME was written with eight theoretical dimensions
- Conducted in SAS 9.4 PROC FACTOR; factors extracted using iterative principal axis factoring and rotated using promax and direct oblimin rotations

Results

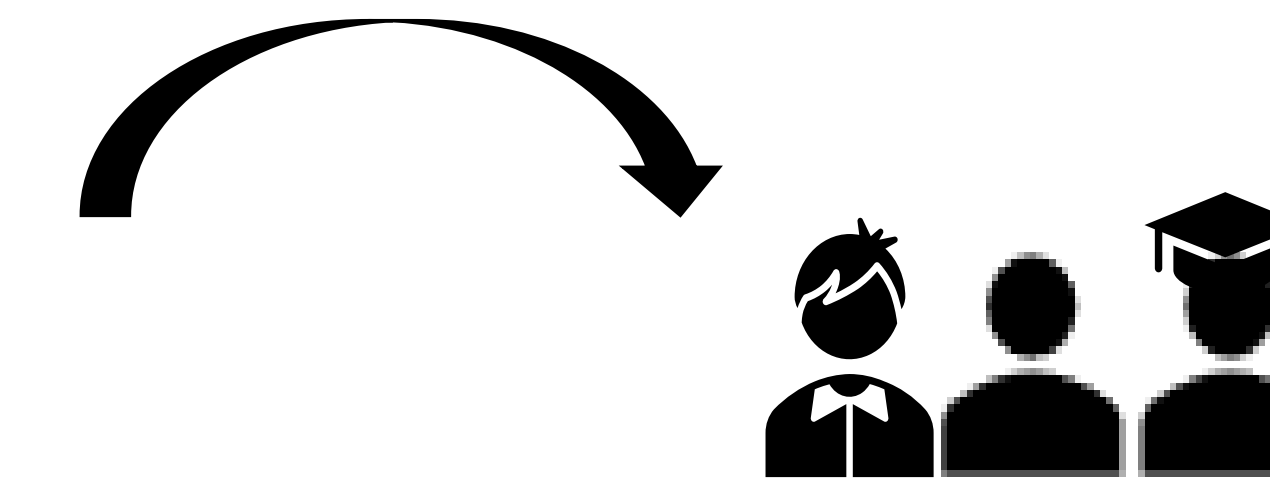
Final adapted tool

A 16-item survey comprised of 7-point Likert scales self-assessing care ownership

The Patient Care Ownership Scale: Development of an Instrument to Measure Patient Care Ownership Among Internal Medicine Trainees

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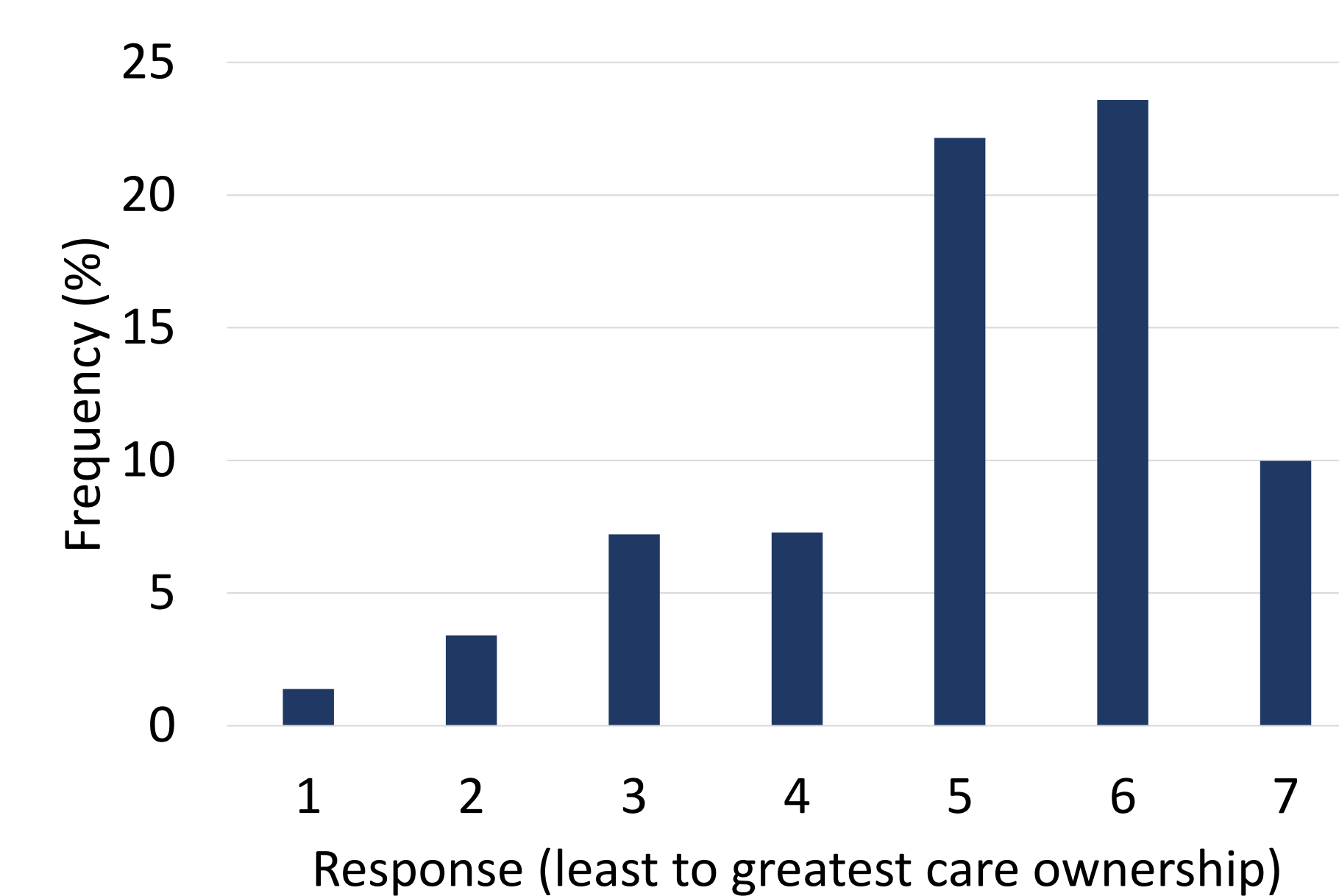


#1: Psychometric properties

Response rate (n)	Item mean range	Inter-item correlation range	Cronbach's alpha
96.7% (176)	4.1-5.8	0.15-0.80	0.92

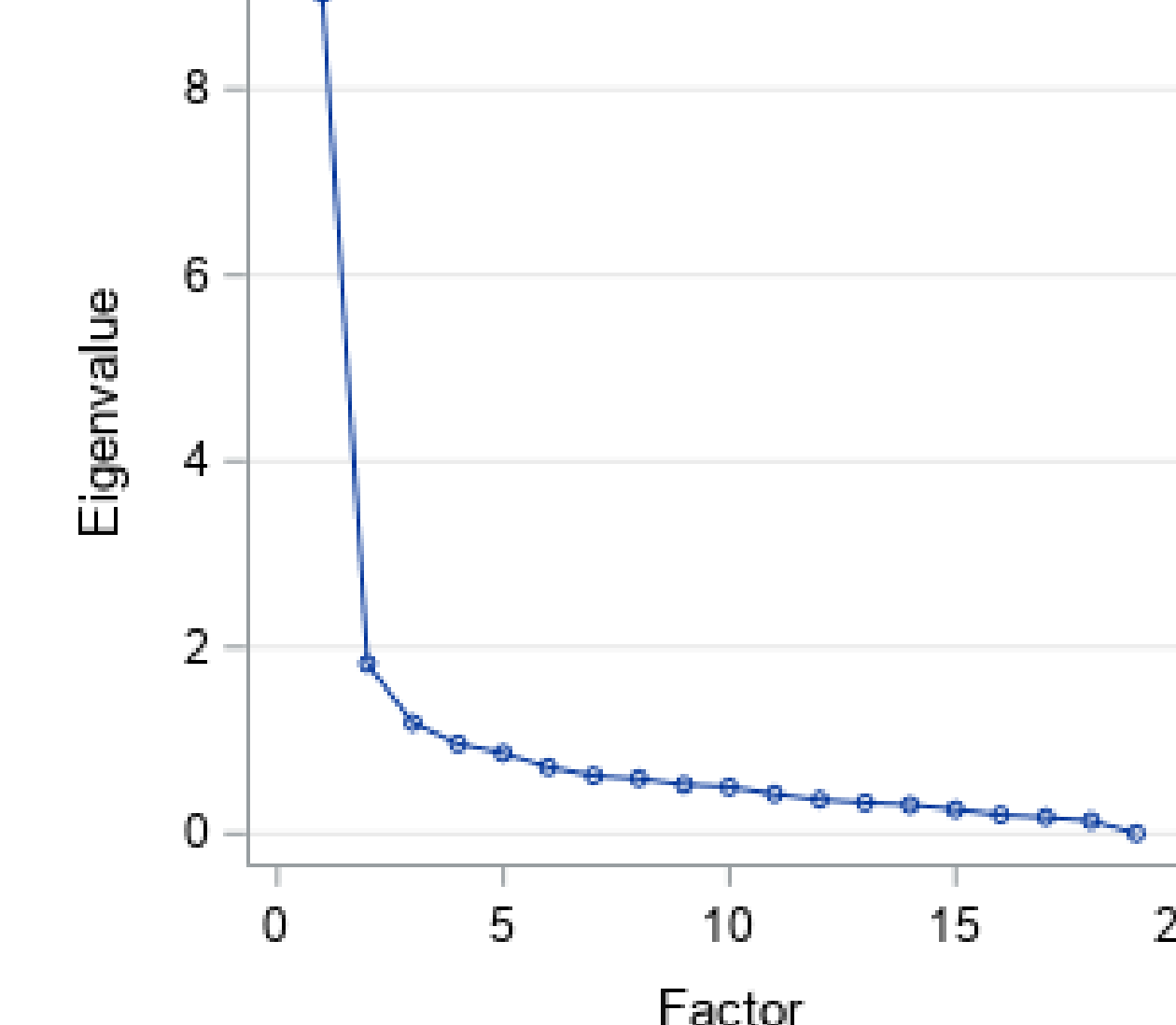
1a. Moderate right-skew of responses

Overall Frequency of Response Choice



1b. Number of factors: 1, 2, and 4

Scree Plot



Number of factors chosen based on the scree plot, Kaiser criterion, and proportion of variance

#2: Factor analysis with sample items

Responsibility

Sample scale items

- I personally made sure to go back and check that all orders were actually carried out.
- I felt responsible for my patient's care, even after my shift ended.
- I was the "go-to" person for knowledge about my patients.

Initiative

Advocacy

- I was vocal and assertive about my patient's best treatment/care.
- I felt comfortable telling the team and/or attending what I felt was the right thing to do for my patient's medical conditions, rather than just letting them decide.

Decision-making

- I frequently deferred to other providers for many aspects of my patient's care.
- I felt comfortable making decisions independently about my patient's care.

Opportunity

- I was given the opportunity to make decisions independently about my patient's care.
- I felt I was not given enough autonomy in patient care.
- I felt I had sufficient opportunity to take ownership of my patient's care.

Discussion

- Factor structure suggests three plausible dimensional structures
 - 1-factor: patient care ownership as single-dimension construct
 - 2-factors: responsibility (7 items) and initiative (9 items)
 - 4-factors: similar to the 2-factor, but with the initiative factor further broken down into advocacy (4 items), decision-making (2 items), and opportunity (3 items)
- Factor analyses are largely consistent with GME, business literature⁵⁻⁶
- **Limitations:**
 - Survey administered after a clinical curriculum at a single institution impacted by COVID-19 pandemic
 - Social desirability bias among medical students not discussed

Conclusions & Next Steps

- Medical students claim to own patient care after their core clinical year
- Each dimension is a potential target for educational intervention
- **Next Steps:**
 - Confirmatory factor analysis with next medical student cohort to evaluate 1, 2, and 4-factor solutions
 - Correlating scale scores across:
 - Clinical training model (i.e., LIC vs traditional block curriculum)
 - Correlating scores with curricular outcomes (e.g., academic performance and validated scales of empathy, growth mindset, professional identity formation, wellbeing, and self-efficacy)

References & Acknowledgements

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