

# A Patient Care Ownership Scale for Medical Students

## INTRODUCTION

Patient care ownership is essential to quality medical care. Yet, it is perceived to be in decline among trainees. Since the 2003 implementation of ACGME duty hour restrictions and increased shiftwork, residents have had less opportunity for care ownership. Resultantly, several studies have measured patient care ownership and the impact of its outcomes in graduate medical education (GME).

Despite extensive work in the field of cognitive psychology and a burgeoning interest in GME, few studies examine patient care ownership in medical student. Moreover, the definition of patient care ownership as a developmental milestone across the continuum of medical education would be incomplete without elucidating its origin. With broad changes to both preclinical and clinical curricula in UME, better understanding the development of patient care ownership in medical students is imperative. Continuity relationships, with patients and others, are paramount in Longitudinal Integrated Clerkships (LICs), and the widespread adoption of this model of clinical education may support patient care ownership.

Thus, a recently published, patient care ownership scale with internal validity evidence for GME (Fraenkel, et al., 2019) was adapted for clinical medical students, and the psychometric properties of the scale for this population were explored.

## METHODS

The original patient ownership scale contained 16-items with 7-point Likert-type scales; in-line changes were made to survey to reflect applicability to medical students. Expert feedback assessed content validity of changes and adherence to the principle of minimal change. Fourth-year medical students representing traditional and LIC clerkships were purposefully sampled for cognitive interviews of scale items. These were conducted with think-aloud approach, followed by scripted, verbal probing. Authors revised items according to qualitative themes from both response process and content. Once student responses were obtained, the underlying factor structure of the adapted scale was examined using exploratory factor analysis (EFA). The extraction method used was iterative PAF and both promax and oblimin rotations – which allow for correlated factors – of different numbers of factor solutions.

## RESULTS

The analysis sample size was 176 (96.7% of potential responders). The item means ranged from 4.1 – 5.8 and correlations ranged from 0.15 – 0.80. Cronbach's alpha for the whole scale was 0.92.

Seven EFA models were fitted and tentative support for three numbers of underlying factors (1, 2, and 4) was found. The item loadings in the 2-factor model mapped onto autonomy/decision-making and initiative, and those in the 4-factor model mapped onto initiative, responsibility, decision-making, and opportunity.

## CONCLUSION

The psychometric properties of a scale adapted to measure patient care ownership in clinical medical students were explored. Each of these factors could serve as salient targets for educational intervention. Future directions of this work include exploring how care ownership is correlated with clinical training

model, wellbeing, and professional identity formation and to what extent the three identified factor structures are supported in a new sample of medical students.