Emphasizing High Value Care in Physical Examination Instruction – A Qualitative Study of Expert Educators

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BACKGROUND

High value care (HVC) has emerged as a curricular priority in medical education.1-3

Performing physical examination (PEx) remains a core competency for trainees, but instruction in PEx is evolving with several reported paradigms:
- Traditional “head to toe”4
- Hypothesis testing, hypothesis-driven approach5
- “Core and clusters” model6
- Hybrid approaches4

Viewing the intersection of HVC and PEx could lend insight on how to better design curricula in both competency domains.

Primary aim: Elucidate how experts understand the concept of a “high value, cost effective physical examination”

Additional aims:
1. Understand real-life barriers to using physical examination in high value care
2. Determine optimal teaching strategies and content for a curriculum in high value physical examination

METHODS

Design overview
Qualitative study of semi-structure interviews with national experts in physical examination instruction and application

Recruitment
Subjects identified through both purposeful and snowball sampling. Inclusion criteria included:
- Authorship of peer-reviewed publication on PEx instruction
- Authorship or contribution to PEx textbook
- Active membership in AAMC’s Directors of Clinical Skills (DOCS)
- Directorship of PEx or clinical skills course at home institution

Data collection
Interviews recorded between August 2015 and January 2016

Data analysis
Open coding with qualitative content analysis using a phenomenological framework. Transcripts coded independently by 2 members of team with 3rd member available to adjudicate disagreement.

RESULTS

20 physicians with an educational focus on PEx participated:
- 95% had local or national educational leadership roles
- 60% had peer-reviewed publications or textbook authorship

During interviews, 3 major themes emerged.

Theme 1: Physical examination’s value includes both economic benefits and value in a broader sense.

Value added by physical exam
- Enhancing diagnostic reasoning
- Reducing downstream costs
- Assessing impact of disease
- Establishing clinical diagnoses
- Fostering connections
- Adding joy to practice
- Providing fringe benefits

Related concepts & synonyms
- Hypothesis testing, evidence basis, integration with clinical history
- Fewer diagnostic tests, reassurance to patients
- Functional assessment, triaging severity of complaint
- Syndromes defined by clinical findings, face validity of examination
- Trust building, patient/physician communication, healing touch
- Intellectually stimulating, “detective work” of using senses
- Procedural guidance, screening, enhancement with technology

Theme 2: There are practical factors and educational barriers to advancing role of PEx in HVC.

Selected factors
- Physician-specific factors
- Patient-specific factors
- Routines / Standards of care
- Intolerance to uncertainty & Defensive medicine
- Inadequate evidence basis
- Instructor-related factors
- Curricular factors

Specific limitations experienced
- Inadequate clinical experience, lack of confidence, poor diagnostic reasoning, poor sensory perception
- Patient expectations, poor mobility, anxieties about uncertainty
- Algorithmic protocolized care, culture of diagnostic testing
- Innate fear of “missing something”, added layer of security with labs and imaging
- Not validated in all settings, diagnostic performance suboptimal
- Availability of skilled bedside teachers, intolerance to curricular innovation
- Breadth of curriculum, number of skills needed to master, lack of formal assessment

RESULTS (continued)

Theme 3: There are opportunities to integrate best practices in high value care instruction and PEx curricula.

Value added by physical exam
- Integrating curriculum
- Teaching physical examination
- Teaching high value care

Selected factors
- Physicians of primary care vs. subspecialists
- Developmental stages of medical education

Specified limitations experienced
- Highlight evidence-based guidelines for physical examination
- Increase high value care recommendations
- Provide regular opportunities to reflect on physical examination value in high value care
- Identify and develop master bedside teachers
- Create a culture that promotes high-value care

KEY FINDINGS and DISCUSSION

Teaching diagnostic reasoning is the key link between HVC curricula and PEx instruction.

PEx skills need to be developed longitudinally – from the preclinical medical school curriculum into residency and beyond.

Educators should explicitly emphasize myriad ways in which PEx holds value and should prioritize certain topics to advance HVC.

Experts recommended topics for further teaching

Top chief complaints
- Pain in large joint e.g. knee
- Cardiac murmurs
- Back pain
- Jugal venous examination
- Headache
- Lung percussion

Limitations
- Subjects were experts in clinical skills instruction, not HVC per se.
- Experts avoided discussing costs of care, interpreting value in its broadest sense.
- The majority of experts were generalists and had a background in internal medicine; specialties were under-represented.

REFERENCES


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