Instruction and Assessment of Doctor-Patient Communication Skills: A Novel Web-Based Approach

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Available at: https://works.bepress.com/erik_langenau/10/
INSTRUCTION AND ASSESSMENT OF DOCTOR-PATIENT COMMUNICATION SKILLS: A NOVEL WEB-BASED APPROACH

Erik Langenau, DO; Luciana Goldstein, MLIS, MSEd; Dot Horber, PhD
Continuous Professional Development & Innovations
Disclosures

None to report
Description of Learning Need

• **Competency-based assessment for physicians**
  - Patient care
  - Medical knowledge
  - Interpersonal and communication skills
  - Professionalism
  - Systems-based practice
  - Practice-based learning and improvement
  - Osteopathic principles and practice

• **Assessment needs**
  - Resident level assessment (ACGME and AOA competencies)
  - Maintenance of Licensure (MOL)
  - Maintenance of Certification (MOC)
  - Osteopathic Continuous Certification (OCC)
Description of Learners

- 58,000 Osteopathic Physicians in U.S. (7% of all physicians)
- All physicians
  - Wish to learn to improve the care of patients
  - Are busy
  - Participate in Continuing Medical Education (CME)
  - Need to comply with new state medical board and specialty board requirements
  - Want educational activities which are relevant, practical, and easy to use.
Background: web-based communication

- Increasing emphasis on competency-based assessment for physicians
  - Medical students
  - Residents
  - Practicing physicians
- Increasing emphasis on doctor-patient communication skills (Teutsch, 2003; Duffy et al, 2004)
- Increasing use of Objective Structured Clinical Examinations (OSCEs) (Boulet et al, 2009)
- Emergence of “Web-OSCEs” (Daetwyer et al, 2010; Novack et al, 2002)
E-Learning Solution

- Web-based communication assessment of doctor-patient communication skills
- Remote Standardized Patients (RSPs)
  - Commonly used for education and assessment
  - Have been used by schools, residency and licensure
- Many content areas could be considered:
  - Communication with child
  - Communication with colleague
  - Communication with teenager
  - Cultural diversity
  - Delivering bad news
  - Empathy
  - End of life/health care proxy
  - Limited English proficiency
  - Medical mistake
Web-based communication module

Remote Standardized Patient (RSP)

→ communication task ←

Raw Scores

Score Report / Written Feedback

Physician Learner

NBOME
NATIONAL BOARD OF OSTEOPATHIC MEDICAL EXAMINERS

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Web-based communication modules

• Communication-focused
• Skype
• Physicians receive
  – Verbal feedback
  – Global communication assessment
  – Communication skills checklist
  – Self-assessment
  – Teaching Points
• Implications for
  – CME
  – MOL
  – OCC
  – Resident Education
Web-based communication module

Short-term goal

- **Research**
- **Purpose:** To evaluate the effectiveness and user acceptance of a web-based educational module for doctor-patient communication skills
Research Study: Web-based communication module

Technologies used in the project

- **Email:**
  - Scheduling, troubleshooting, updating
- **PowerPoint**
  - Training
- **Listserv:**
  - Providing opportunity for RSPs to reach out to one another
- **Doodle:**
  - Obtaining RSP availability
- **Skype:**
  - Training, technical support and live encounters
- **SuperTinTin:**
  - Recording encounters (screen capture)
- **NBOME website:**
  - Uploading videos
- **HP Webcam HD-2200:**
  - Standardize video and audio quality
- **Survey Monkey**
  - Surveying (demographics, post-exercise experience)
Physician Experience

• Recruitment
• Training documents
  – Skype Trouble Shooting
  – Encounter Instructions
• Scheduling
• Pre-encounter
  – Skype Username
  – Technology check
  – Case Introduction

CASE 103P: Case Introduction

<table>
<thead>
<tr>
<th>Patient Name</th>
<th>Jay Downing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>45 years old</td>
</tr>
<tr>
<td>Setting for visit</td>
<td>Primary Care Office</td>
</tr>
</tbody>
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Background
This is the first time you are seeing the patient. He has been followed by your partner, who is on vacation, for many years. In a quick review of his health record, you note he has had a history of intermittent low back pain. An MRI of the lumbosacral spine was done earlier this year. It failed to demonstrate any pathology. His past medical history is otherwise unremarkable.

Chief Complaint
I have back pain and need stronger medicine

Vital Signs
- Resp Rate: 18
- Heart Rate: 92
- Blood Press: 136/78

Physician Task
1. Obtain a pain history
2. Address the patient’s concerns and pain’s impact on daily living
3. Discuss further evaluation and/or treatment options.

*Note: You are not to conduct a physical exam. Therefore, please refrain from asking the patient to disclose, perform range of motion testing, or conduct other physical examination maneuvers.
Physician Experience (continued)

• **Encounter**
  – Doctor-patient communication (15 min)
  – Self-assessment (5 min)
  – Verbal Feedback (10 min)
  – Support: 24-hour staff support (phone)

• **Post-encounter**
  – Email Self-assessment
  – Receive email from NBOME staff
    • Completed Global Assessment
    • Completed Case-specific Checklist (Key Action)
    • Completed Self-Assessment
    • Teaching Points
  – Survey of Experience
  – Focus Group Discussion

• **NBOME Staff support throughout experience (phone, email and Skype)**
Formative Assessment

- **Four assessments**
  - Verbal feedback from remote SPs
    - Emphasis on teaching points for each case
  - **Written Feedback**
    - Communication key action assessment (key action checklist)
    - Global communication skills assessment
      - Likert-type scale
    - Self-assessment of global communication skills
Web-based communication module

Global Assessment

- Informed by Essential Communication Elements, Kalamazoo Consensus Statement.

- Case Development Committee
Web-based communication module

Case-Specific Checklist

- Case Development Committee

![Checklist Image]
Self-Assessment

- Global Assessment
- Modified for self assessment
Teaching Points

- Summary of Case
- Medical History
- Pain History
- Case-specific Information
- References

CASE 103P: Case Teaching Points

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Physician Task
1. Obtain a pain history
2. Address the patient’s concerns and pain’s impact on daily living
3. Discuss further evaluation and/or treatment options.

Teaching points
- The medical history is the foundation for being able to diagnose, treat, and prevent illness. The principles of osteopathic care are identified in Foundations of Osteopathic Medicine, 5th Edition
  1. The patient is the focus for health care.
  2. The patient has the primary responsibility for his or her health.
  3. An effective treatment program for patient care is founded on the tenets of osteopathic medicine and:
     - incorporates evidence-based guidelines,
     - optimizes the patient’s natural healing capacity,
     - addresses the primary cause of disease, and
     - emphasizes health maintenance and disease prevention.
- As part of the medical history, eliciting a detailed pain history is important when developing a differential diagnosis and understanding how the pain impacts the patient’s quality of life and daily living. A pain history should include onset, frequency, duration, location, quality, radiation, severity, associated symptoms, as well as relieving and aggravating factors. A commonly used mnemonic, PPQRSTTA, is used to remember the important history elements when obtaining a pain history.

- PPQRSTTA
  - Pain
  - Provocation
  - Quality
  - Radiation
  - Severity
  - Timing
    - Onset
    - Frequency
    - Duration
  - Associated Symptoms

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Remote Standardized Patient (RSP) Training

- Introduction to Osteopathic Medicine: 20 min
  - Review prerecorded PowerPoint Presentation
- Case Training: 4-6 hours
  - Portrayal
  - Scoring (checklist and global assessment)
  - Technology
  - Delivering verbal feedback
- Technology Check: 1 hour
- Dress Rehearsal: 1 hour
Remote Standardized Patient (RSP) Experience

- **Training documents**
  - Technology Set Up Procedures
  - Skype Trouble Shooting
  - Encounter Instructions

- **Scheduling**

- **Pre-encounter**
  - Skype Username
  - Skype Account
  - SuperTinTin

- **Encounter**
  - Doctor-patient communication (15 min)
  - Complete evaluation forms (5 min)
  - Verbal Feedback (10 min)
  - Support: 24-hour staff support (phone)

- **Post-encounter**
  - Complete evaluations: checklist, global assessment, technology report
  - Upload video to NBOME research website
  - Survey of experience

- **NBOME Staff support throughout experience (phone, email and Skype)**
Summary

- Web-based communication formative assessment using RSPs
- Authentic
- Practice-relevant
- Allows physicians to participate in a meaningful exercise, while potentially satisfying
  - Licensure requirements
  - Specialty board requirements for continuous professional development
  - Residency program requirements
Next Steps

• Analyze data
  – Scoring
  – Survey of Residents
  – Survey of RSPs
  – Focus Group of Residents
  – Focus Group of RSPs

• Dissemination of findings
References


References (cont)


THANK YOU