Clinical Vignettes in Health Services Research: Advantages and Limitations of Different Formats
Lisa D. Marceau, MPH; John B. McKinlay, Ph.D.

Background
Using real patients in some areas of health services research and medical education is:
• Logistically difficult;
• Burdensome; and
• Potentially unethical.
Health services researchers, medical educators and credentialing organizations increasingly use clinical scenarios/vignettes to avoid these obstacles.

Brief History of Vignettes
• Written Scenarios: Scenarios have been cost-efficiently used as written scripts for many decades, but their realism and validity have been challenged.
• Introduction of first Standardized Patient (1963): Standardized patients provide some advantages, although cost, inconsistency of presentation and believability remain limitations.
• Video Vignettes: High resolution video vignettes of patient actor using clinically authentic scripts build upon earlier approaches. Sharing some of the limitations of earlier modes (especially external validity), they provide distinct advantages.

Using Vignettes to Measure Disparities
• The “patient” differs only in their appearance (male or female, lower vs. upper SES, race/ethnicity).
• Despite identical clinical presentation, they received significantly different diagnoses and management for their diabetes. The same “patient” presenting identical signs and symptoms of Type 2 diabetes

Low SES High SES

The same “patient” presenting identical signs and symptoms of Type 2 diabetes

Robert Tompkins

Nancy Jacobs

Findings
Video Vignettes Provide Many Benefits over Other Formats:
• We have successfully identified and measured healthcare disparities (the healthcare received by the “patients” depicted (See Figure) differed significantly).
• Use of video has disentangled patient, provider and organizational-level contributions to healthcare disparities.
• Videos are easily incorporated in different types of HSR studies (e.g., factorial experiments and surveys and qualitative methods).
• We have successfully used in cross national healthcare studies.
• Physician responses indicate they have high external validity.
• They are easily employed in distance learning (on-line educational programs).

Advantages or Disadvantages of Video Scenarios, Standardized Patients (SP) and Written Scenarios

<table>
<thead>
<tr>
<th>Video-based scenarios</th>
<th>Standardized patients (SP)</th>
<th>Written scenarios</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insert non-verbal cues (i.e., Levine Fist) ✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Strict standardization ✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Realism ✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Believability ✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Time and cost ($) ✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Socio-emotional components ✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Complex symptom presentation ✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Incorporate surrogates (i.e., dialect) ✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Promotes real-time reaction ✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vary non-modifiable risk factors ✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>More robust comparison (nat’l, int’l) ✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Advantages + Disadvantages

Conclusions
• Clinical vignettes have many advantages over both written scenarios and standardized patients (See Table).
• Clinical vignettes are now an established method in medical education and health services research.
• Content and technologies continue to improve in the delivery of high quality and high impact video.
• Scientific legitimacy is underscored by numerous publications in major scientific journals.
• Initial resistance to use of video-based clinical scenarios has dissipated – they are now viewed as an important addition to the armamentarium of health services research.
• Clinical vignette methods continue to evolve with emerging new technologies (like web based, smart phones, avatars) and their full potential is yet to be fully realized.

Implications
Filmed vignettes, now widely accepted in health services research and employed in medical education and credentialing, provide distinct cost and quality benefits. They have advantages in indentifying variations in healthcare because they:
• Are amenable to different modes of administration (in-person interviews or via the internet).
• Are able to access otherwise hard to reach populations (such as rural doctors).
• Allow for cost efficient access to national samples (previously cost prohibitive).
• Address multilingual communities (such as doctors in largely Hispanic practices).
• Measure cross national variations in healthcare between different national systems.
• Are cost-efficiently repurposed for other uses like medical training or quality improvement initiatives.