Validity Evidence for a New Checklist for Evaluating Consultations: The 5Cs Model

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Consultations

Communication and Interpersonal Skills

Communication with Colleagues

Telephone Consultations from the ED
In the Emergency Department consultations occur in **20%-40%** of cases

(Lee Emerg Med J 2008)

29% of EM docs report a lack of standardized consultation protocol

A majority believe residents are inadequately trained in consultation

(Kessler J Emerg Med 2012)
What are the characteristics of an Effective Consultation?

✓ Literature review
✓ Qualitative study of EM consultations (Kessler et al J Emerg Med 2012)
✓ Consensus panel of 8 experts
✓ Business model: “7 C’s of Consulting” by Mick Cope
  • Client, clarify, create, change, confirm, continue, close
The Five C’s of Phone Consultation
(Kessler J Emerg Med 2012)

- Contact
- Communicate
- Core Question
- Collaboration
- Closing the Loop
Validity is an **argument**

*Is it reasonable to use the scores from this assessment for a particular purpose?*
Sources of Validity Evidence
NCME; Downing 2003

Content
Response Process
Internal Structure
Relationships to other Variables
Consequences
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Contact

Introducing the consulting and consultant physicians; building the relationship.

- States name
- States rank and service
- Identifies supervising attending
- Identifies name of consultant physician
Communicate

Giving a concise story and asking focused questions

- Presents a concise story
- Presents an accurate recount of information/case detail
- Speaks clearly
Core Question

Preparing a specific question for the consultant.

Deciding on a reasonable timeframe for consultation

- Specifies need for consultation
- Specifies timeframe for consultation
Collaboration

Planning a course of action based on the discussion

- Is open to and incorporates consultant’s recommendations
Closing the Loop

Ensuring that both parties agree to the plan and to maintaining communication about the patient

- Reviews and repeats patient care plan
- Thanks consultant for consultation
Sources of Validity Evidence
NCME; Downing 2003

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Data: from Prospective RCT

(Kessler Acad Emerg Med 2012)

47 EM Residents

Intervention N=19

90 min Didactic on 5Cs:
- Review sample cases
- Practice and feedback
- Note cards

Control N=24

90 min Didactic Communication skills unrelated to 5Cs model

Assessment: 2 simulated phone consultations in the 2 weeks following
The Simulated Consultations

- Psychiatry Consultation: a patient with psychosis
- Surgery Consultation: worsening abdominal pain

The “Standardized Consultant”:
- EM/IM attending with 10 years experience
- No knowledge of 5Cs
- About 1 hr training plus mock encounters
The checklist data

• All simulated phone consults were recorded
  • 2 consults/resident x 43 residents

• 3 trained EM attendings rated all recordings using the 12-item checklist
Sources of Validity Evidence

NCME; Downing 2003

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Response process

- Inter-rater reliability (intra-class correlations) = 0.94
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NCME; Downing 2003

- Content
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- Internal Structure
- Relationships to other Variables
- Consequences
Validity evidence: Internal Structure

- **Internal consistency** (Cronbach’s Alpha) for each rater: 0.7, 0.7, 0.8
- **Generalizability**
  - Phi = 0.89
- **D study** → Phi of 0.80
  - 2 raters x 1 case
  - 1 rater x 3 cases
Sources of Validity Evidence
NCME; Downing 2003

Content
Response Process
Internal Structure
Relationships to other Variables
Consequences
Validity evidence:

Relationships to other Variables

- Intervention group scored higher on 9/12 items
- Mean checklist scores of Intervention group > control group (p<.0001)
Validity evidence:

Relationships to other Variables

- **Global rating scale**
  - 7 items
    - Intro, case, objective, discussion, confirmation, IPS, overall
  - 5 pt scale (not effective → extremely effective)
  - 3 different raters not familiar with 5C’s

- **Global rating by consulting specialist**
  - 1 global item, 5-point scale (not effective – extremely effective)
  - 1 surgeon, 1 psychiatrist
Validity evidence:

Relationships to other Variables

• Correlation to global rating scale (EM raters): p<.0001
  • 0.59 surgery consult
  • 0.70 psychiatry consult

• Correlation to global rating item
  • 0.26 psychiatry attending p<.08
  • 0.40 surgery attending p<.008
Conclusions

Validity Evidence:

- **Content**
- **Response process**
- **Internal Structure**
- **Relationships to other variables**

Supports the use of 5C’s checklist to assess the phone consultation skills of EM residents
Limitations

- One EM program, one institution
- Other instruments (GRS and GR item) not validated
- Simulated consults and context may not represent behavior in real life
  - Need G studies in natural settings
Thank you

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