



APPLYING THEORY TO PRACTICE: A WORLDWIDE PHYSICIANS NEEDS ASSESSMENT

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ABSTRACT

PURPOSE

The critical element to designing effective and impactful educational interventions for physicians is to ensure a comprehensive needs assessment has been conducted (Davis, Thomson, O'Brien, Wolf, Mazmanian, & Taylor-Vaisey, 1999; Lockyer, 1998; Slotnick, 1999). The challenge however is to investigate these needs in a reliable and valid manner while recognizing that the methodologies are often impractical or prohibitive with respect to the resources required. Slotnick's (1999; 2006); Slotnick, et al. (2002) heuristic framework provides a validated means by which to capture the needs of a large sample of physicians.

METHODS

Key medical experts constructed patient case scenarios across 10 areas of medical practice. Over 1800 physicians on active duty and deployed around the world were invited by email through a secure login access to an online site. Upon accessing the site, they selected the clinical cases of relevance to their specialty area, reviewed the scenarios, and responded to practice context questions based upon Slotnick's (1996) framework.

RESULTS

The data analysis revealed significant needs among differing clinical specialists, and provided evidence regarding preferred formats, mediums, and means of learning for each clinical group. Participants expressed their keenest interest in updating their medical skills in the application and implementation of specific medical equipment unique to their practice context.

CONCLUSIONS

The findings enabled the design of more focused research that will elaborate on the gaps that emerged among particular sub-groups. In addition, the results indicated the need to develop educational interventions that address context specific medical practice situations.

OBJECTIVES

1. Identify preferred sources and formats of learning among US Army Medcom Physicians
2. Assess perceived value of CME activities
3. Identify cases of interest to US Army Medcom Physicians
4. Examine practicality of using this approach in CME practice with a large, geographically diverse target audience

METHODOLOGY

DATA COLLECTION

- Online survey to assess needs of physicians in 10 therapeutic areas
- 6-week timeframe of data collection

QUANTITATIVE ANALYSIS

- Frequencies
- t-tests of mean differences
- Cross tabulations

STRENGTHS/CONSTRAINTS

STRENGTHS

- Representative sample of US Medical Command physicians
- Assess knowledge & interests
- Assess expressed needs of Medical Command physicians
- Face valid for participants
- Design permits for within-specialty assessment

CONSTRAINTS

- Cases & categorical responses may limit understanding of true learning needs
- Limited control of testing environment may impact test reliability
- Difficult to interpret behavioral & attitudinal measures
- Difficult to assess implicit or unperceived performance needs

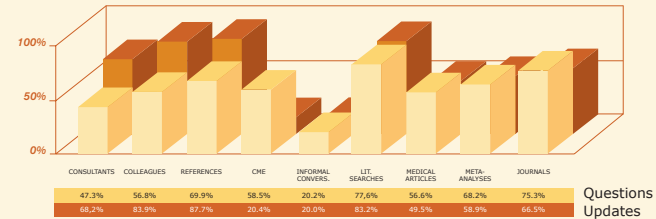
DEMOGRAPHICS OF PARTICIPANTS

1511 medcom physicians reached
Total participants: 465
(>30% answer rate)

SPECIALTIES		GENDER	
Cardiologists	21	Male	87.3%
Dermatologists	14	Female	12.7%
E.R. Physicians	32		
General Surgeons	45		
GMOs	11	RANK	
Otolaryngologists	17	Captain	14.3%
Pathologists	21	Major	33.8%
Preventive Medicine physicians	60	Lieutenant-Colonel	24.5%
Primary Care physicians	218	Colonel	27.3%
Radiologists	26		

FINDINGS

1. Preferred Sources of Information

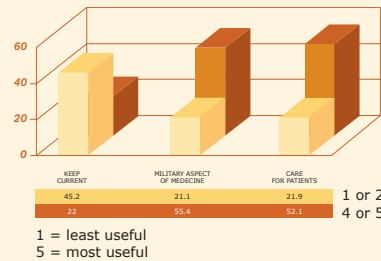


Sources consulted for updates on topics related to practice

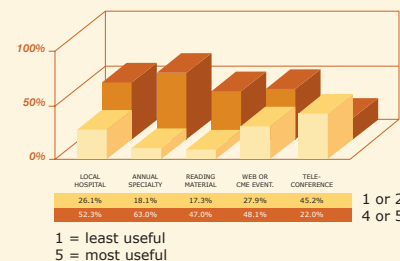
Sources consulted when questions arise about patients or their families

2. Perception of CME Activities

a) Usefulness of Army CME Activities for Various Purposes



b) Usefulness of Specific Army CME Activities



Overall, CME is:

- Perceived as relatively good source for learning
- Perceived as most useful for increasing knowledge of military aspects of medicine
- Perceived as most useful for improving ability to care for patients
- Used more for updating than to answer questions

Overall, physicians prefer:

- Live conferences & symposia as the forum for CME
- Office-based references & colleagues for consultation & questions
- To utilize computer-based searches and clinical journals as their most common sources for updates

RECOMMENDATIONS

1. Consider specialty-driven "short-courses" on regional basis

2. Design qualitative methods to assess learning needs, attitudes, thoughts and behaviors

- Yields "richer" information
- Ensures fit to learning style and need
- Facilitates interventions directed at appropriate stage of medical practice

3. Design CME activities using forums that are most appropriate to learning needs

- Conferences and symposium of information "downloads"
- Workshops for application of learning principles and peer-to-peer exchange
- Multimedia for self-learning over time

4. Study what is being done in the specialty CME courses to determine best practices

5. CME designers should emphasize practical medical education

- a) Pursue
 - Knowledge change through conferences
 - Skill change through specialty courses
 - Behaviour change in medical CME focusing on application strategies
- b) Maximize
 - Multi-method approach to CME
 - Practice-based support material & activities
 - Feedback mechanisms that support reflection & self-evaluation