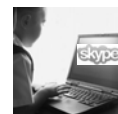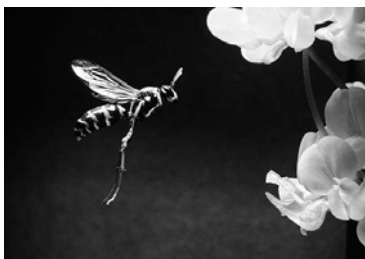**Clinicians and Technology: Accessing Evidence Based Information in your PT Practice**

James Elliott PT, PhD-c

Laura LaPorta Krum PT, PhD



How do we find the necessary information to make life easier?
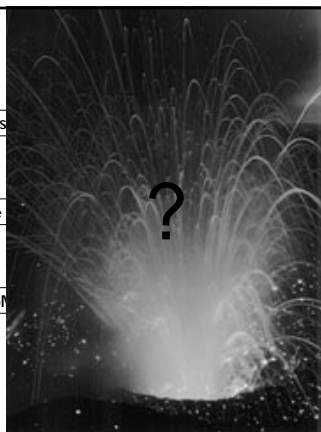


Evidence Bas... ...e in Motion

Google ...ne Library

?

Publ... ...Dro

Where do we go?

## Purpose

- To investigate and monitor specific practice habits of physical therapist clinical instructors (CIs)

- To determine the best ways to demonstrate support and development of CIs.

Purpose

## Materials/Methods

- Survey Study
  - Participants
    - 433 US based physical therapists currently contracted as clinical educators with the University
    - Received survey and SASE

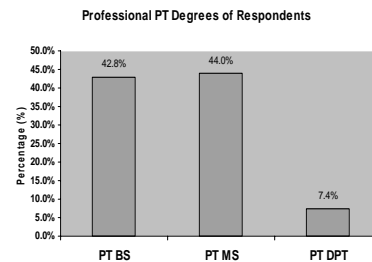- Response rate = 40%
  - N=175

Materials/Methods

## Characteristics of Respondents

- Mean career experience
  - 13 years ± 9.2 SD

- 61% APTA members (n=107)

- 41% were CI credentialed (n=72)

APTA

Results

## Figure 1: Physical Therapy Degrees of Respondents



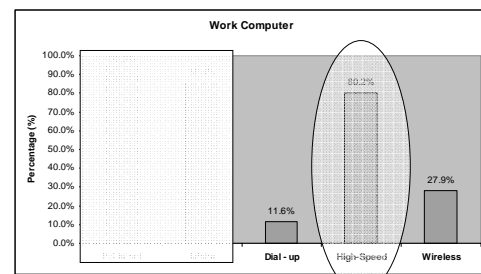**Professional PT Degrees of Respondents**
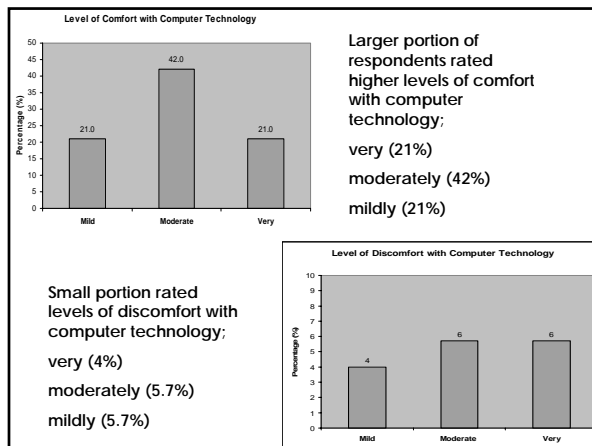
Results

## Use of Technology

- 98% (n=172) reported using a computer at work and/or home for work-related duties

- Majority had access to technology necessary to access and download scientific articles
  - Figure 2

Results

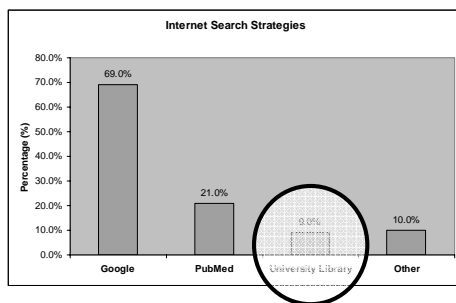## Figure 2: Computer Technology Used by Clinical Instructors at Work



**Work Computer**

Results

## Slide 1

**Level of Comfort with Computer Technology**



Larger portion of respondents rated higher levels of comfort with computer technology;

very (21%)

moderately (42%)

mildly (21%)

Small portion rated levels of discomfort with computer technology;

very (4%)

moderately (5.7%)

mildly (5.7%)

**Level of Discomfort with Computer Technology**



## Slide 2

# Use of Technology

- 78% (n=136) reported accessing scientific articles via internet in past six-months
  – Figure 3

Results

## Slide 3

# Figure 3: Search Strategies Used by Clinical Educators

**Internet Search Strategies**



- Google 69.0%
- PubMed 21.0%
- University Library 0.0%
- Other 10.0%

Results

## Slide 4

What types of journals?



61% of respondents are members of the APTA

- PT journal
- JOSPT
- Spine 9.0%
- Manual Therapy 5.0%

## Slide 5

Average number of articles read/month



- 0 — 5.0%
- 1 to 2
- 3 to 4 — 25.0%
- 5 to 6 — 18.0%
- 6+ — 6.0%

## Slide 6

How can we support our clinical faculty?

### "Meaningful" Methods of Clinical Faculty Support

- Access to university-based full text articles (51%)

- Credit toward a continuing education course hosted by university (29%)

- Article summaries in specialty categories provided on CD (28%).

Results

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# Conclusion

- Some CIs may derive benefit from specific educational strategies designed to:
  – improve access to technology

  – use technology and

  – apply evidence obtained using current technology
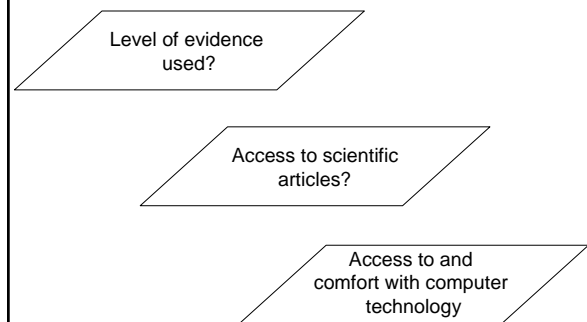
Conclusion/Relevance

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### Relevance

- Help to identify the needs of clinical faculty
  – assist in the design of specific educational outreaches (e.g., gaining access to electronic library search engines)

- Help CIs become more familiar with current best-evidence.

- Likely work towards improving the clinical learning environments of entry-level physical therapy students

Conclusion/Relevance

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### Accessing Evidence

Level of evidence used?

Access to scientific articles?

Access to and comfort with computer technology

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### Hierarchy of Evidence for Treatment

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### Evidence Hierarchy

- Higher levels of study design allow you to have increased confidence in the conclusions drawn from the study

Systematic Reviews and Meta-analyses of RCTs

Multiple RCTs

Randomized control trial

Observational Cohort or Case Control Studies, Large Case Series

Case Reports, Small Case Series

Unsystematic Clinical Observations (experience)

---

## Slide 1

**Finding Information**

## Slide 2

**I have a clinical question that I need to research and I would like a full-text article**

**Option A:**
- Search databases on APTA website
- Search directly on a journal website. (PT Journal, JOSPT)
  - Note: You must be a subscriber

**Option B:**
- Search free databases that may have free full-text articles available

**Option C:**
- Receive access to a database or
- Subscribe to a database

## Slide 3

**Option A(1):**
- Search databases on APTA website. (**http://www.apta.org**)

**APTA's Hooked On Evidence**
Systematic reviews of literature, specifically interventions, must be an APTA member

http://www.hookedonevidence.com

**Open Door**
- ProQuest
- CINAHL

- Hooked on Evidence
  ADD process of investigating question

- Open Door
  - ProQuest
  - CINAHL

## Slide 4

**Option A(2):**
- Search directly on a journal website. (PT Journal, JOSPT)

**Multiple subscriptions can add up!**

APTA sections with their own journals: aquatic therapy, geriatrics, orthopedics, neurology, pediatrics, sports, women's health

See Sections for specific membership and section fees

- PT Journal
  - http://www.ptjournal.org/
  - Online Now
  - Rapid Responses
  - The Bottom Line

- SOWH
  - http://www.womenshealthapta.org/

## Slide 5

**Option B:**
- Search free databases that may have free full-text articles available

**PubMed -** Free access to Medline
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi

**Scholar Google -** Similar to PubMed
http://scholar.google.com/

**PEDro -** Links to Pubmed, good place to search
http://www.pedro.fhs.usyd.edu.au/index.html

**National Guideline Clearinghouse -** Good for broad topics
http://www.guidelines.gov

**Feeling Lucky? -** Quick way to answer a clinical question
http://www.bestbets.org

## Slide 6

**Option C(1):**
- Receive access to a database

- Hospital libraries
- Local libraries
- University libraries

- Local library
  - **Full-text articles or interlibrary loan (ILL)**
    - May be less convenient
    - $ for copies for copy machine; ILL is usually free

- University library
  - ADD link and demonstrate search?

## Slide 1

**Option C(2):**
- Subscribe to a database

**Cochrane Collaboration**
http://www.mrw.interscience.wiley.com/cochrane/cochrane_search_fs.html

High-level of evidence available, Abstracts are Free, Subscription ranges from $285-$535/year, 24-hour access is $25

**Medline**
$175.00/year for individual subscription, NO BENEFITS FROM SUBSCRIPTION THAT ARE NOT ALREADY AVAILABLE FREE THROUGH PUBMED

**CINAHL (CINAHL + Medline database)**
$20 annual subscription fee; $16 per article by mail, $20 per article by fax if not available full-text through website
http://www.cinahl.com

May cancel membership within 2 weeks, $10 processing fee, no full refunds

Multiple articles can get expensive

## Slide 2

### Other APTA Resources

- Interactive Guide to Physical Therapist Practice
- CONNECT
- OPTIMAL
- High Wire Press

## Slide 3

### Interactive Guide to PT Practice

## Slide 4

### Other APTA Resources

- CONNECT
- OPTIMAL
- High Wire Press

## Slide 5



## Slide 6

### THANK YOU!

**http://academic.regis.edu/clinicaleducation**

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