Developing Academic Posters Using a Single PowerPoint Slide

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College of Nursing
Today’s Presentation

Part 1

- Definition of “academic / scholarly” poster
- Examples of different types
- Explain basic components with demonstrations
- My advice
- Useful Web sites

Part 2

- Proposed policy and procedure for CON faculty and graduate students
- Graduate Research Day development & print schedule
What is an Academic / Scholarly Poster?

• Poster is a **visual abstract** or **pictorial version** of your project

• Only includes the **most important information** that you want to convey to your audience

• Tables, graphs or pictures **illustrate your information** rather than lots of text

• “Just give me the facts, **no cute stuff**!”

• Typically is one large Powerpoint slide
The Relationship Between Self-Reported Stress Level and Physiologic Measures of Stress in the Hospitalized Cardiac Patient

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College of Nursing, Georgia Health Sciences University
Augusta, GA

Introduction

Stress is a common finding in patients hospitalized with coronary artery disease (CAD) and is known to have deleterious effects on patient outcomes. Healthcare providers frequently rely on subjective reporting of feelings of stress provided by the patient. However, little evidence exists to support the use of self-reported stress level (SRSL) as a predictor of stress-induced physiologic changes in CAD patients.

Objective

One of the objectives of this randomized clinical trial was to examine the relationship between SRSL as measured using a visual analog scale (VAS) and physiologic measures of stress to include: arterial blood glucose (SBG), heart rate (HR), systolic blood pressure (SBP), and rate-pressure product (RPP) in patients hospitalized with CAD.

Methods

Using an experimental design, the effects of a brief relaxation technique (RR) intervention were tested on physiologic markers of stress to include: SBG, HR, SBP, RPP, and SRSL. Subjects in the experimental group were taught to elicit the RR while subjects in the control group were instructed to rest quietly during the study period. Pretest and posttest measures of SBG, HR, SBP, RPP, and SRSL were obtained for all subjects (n = 40; 73% male; age 64.8 ± 12.4 yrs).

Summary

The lack of correlation between SRSL and physiologic measures of stress in patients hospitalized with CAD brings into question the usefulness of reliance on patient self-report in assessing stress level. These findings suggest the need for the development of tools that better assess stress levels in hospitalized CAD patients.
Introduction

The prevalence of eosinophilic esophagitis (EoE) is rapidly increasing to ~110,000 in the US. Chronic EoE may lead to complications such as food impaction in the esophagus, small caliber esophagus, and esophageal strictures. Early diagnosis and appropriate management, particularly in childhood, may reduce lifetime sequelae of EoE and improve long-term patient’s outcome. Thus, a priority for clinicians is to find an effective treatment for EoE with minimal risk to pediatric patients.

One strategy is having patients swallow a low dose of fluticasone in its spray form (Flonase) rather than swallowing the standard high-dose fluticasone in its tablet form (Flomax MDI). This novel pharmacologic intervention should not produce the side effects such as nasal or esophageal candidiasis, and skin irritation.

This clinical vignette describes how the author (a pediatric nurse practitioner) used a low dose of fluticasone (Flonase spray) to reduce esophageal inflammation due to EoE in her pediatric patients.

Background

EoE is characterized by inflammation and eosinophilic infiltration (>15/100 eosinophils/hpf) of the esophagus in conjunction with upper gastrointestinal symptoms.

**Symptoms:** Vomiting, abdominal pain, feeding problems, heartburn, chest pain, regurgitation, and/or dysphagia.

**Food allergies** are thought to be a causative factor.

**Diagnosis** requires endoscopy and biopsies of the proximal and distal esophagus.

Management of children with EoE varies, but essential of care include both dietary and pharmacologic options.

- **Dietary interventions**: Use of elemental diet or elimination of specific foods.
- **Pharmacologic interventions**: Use of medications such as proton-pump inhibitors (PPI), oral steroids, and topical steroids.


Case Descriptions

Demographics: Seven pediatric patients aged 2-12 years old (5 males and 2 females) were treated at a tertiary children’s medical center in the southeastern portion of the US. Clinicians treating these patients were 3 physicians and 1 nurse practitioner during the time frame of this project.

EoE Diagnoses: Endoscopy with biopsies of proximal and distal esophageal tissue (>20 eos/hpf).

**Treatment:** Patients swallowed fluticasone spray 2 sprays (100 mcg) PO q12h for a period of 8 weeks. Some patients were treated for 6 weeks without dietary restrictions. All patients were instructed to follow a diet excluding trigger foods and to avoid all citrus fruits, tomatoes, and dairy products.

**Findings:** Of the seven patients, six experienced improvement of their symptoms, which was confirmed with histological (reduction of eosinophils in biopsies) and endoscopic (normalization of an eosinophilic mucosal evidence). These patients did NOT experience adverse effects during the course of this novel treatment, including NO incidents of oral or esophageal candidiasis, unlike patients typically treated with Flomax MDI. Although not yet evaluated, long-term follow-up of these treatment response is not expected to produce adverse effects since the dose of swallowed fluticasone spray is significantly lower than that of swallowed Flomax MDI.

Summary / Recommendations

Anecdotal clinical observations by all four clinicians imply that the lower dose of swallowed fluticasone (Flonase spray) is an effective treatment for EoE in pediatric patients.

- Effective replacement for current standard dose of swallowed fluticasone (Flomax MDI)
- Fluticasone 2 sprays (100 mcg) per day
- Fluticasone dose is less than 1/3 that of Flomax

**Patients treated with swallowed Flonase experienced no incidences of oral or esophageal candidiasis, which has been observed in patients treated with swallowed Flomax.**

**Patients treated with swallowed Flonase exhibited no adverse effects related to this medication.**

Swallowed Flonase was successful in treating EoE in pediatric patients in conjunction with or without dietary restrictions.

Further research on a larger scale is necessary to validate these observations and provide further evidence for using Flonase as an EoE treatment in pediatric patients.

Investigations are also needed to evaluate the potential long-term effects of swallowed fluticasone (Flomax and Flonase) on bone growth and density in this patient population.

References


Acknowledgments

I would like to thank Drs. Oena Dornstatten and Mike Goel for their assistance with this project. I would also like to thank Drs. Barbara Kleinman, Beth NeSmith, and Autumn Schuman for their assistance with the abstract and poster.
THEORETICAL DEFINITIONS OF ROGERS’ INNOVATION COMPLEXITY IN PRACTICE GUIDELINE ADOPTION: A SYSTEMATIC REVIEW

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Background
- Incorporation of research evidence into clinical practice may take up to 17 years.
- No correlation between availability of practice guidelines & changes in clinical practice.
- Guideline adoption rates vary from 64% - 100%.
- Rogers’ definitions of complexity do not influence adoption rates.
- Lack of theoretical knowledge remains a barrier to understanding adoption of clinical practice guidelines.

Purpose
1. Examine state of the science regarding effect of innovation complexity on adoption of clinical practice guidelines
2. Determine if Rogers’ definition of innovation complexity apply to adoption of clinical practice guidelines in critical care nurses

Methods
- Systematic search using CINAHL, Medline, & Cochrane databases
- Key terms: critical care, practice guidelines, characteristics, diffusion of innovation, complexity, simplicity, difficult, nurse, learner
- Inclusion criteria: English language, acute care, critical care, comparison, clinical practice guidelines, all theoretical frameworks, all years
- Population expanded to include physicians & nurses in acute care practice due to paucity of studies with critical care nurse sample
- Exclusion criteria: theory/long term care settings
- 167 articles located
- Title/abstract reviewed to extract complexity data
- Quality assessment
- Studies categorized using evidence hierarchy
- Standardized quality appraisal tools used
- Critical Appraisal Skills Programme (CASP)/Systematic Review
- Critical Appraisal of Qualitative Studies
- Critical Review Form Qualitative Studies
- Critical Review Form Quantitative Studies
- Level of quality assessed using Stoller’s scale

Findings
- Seven studies (1994-2008) met inclusion criteria
- Four quantitative & three qualitative studies analyzed
- One study explicitly identified Rogers’ framework
- Two theoretical definitions of complexity identified (Table 1)
- Guideline difficulty to understand & incorporate into practice
- Refers to implementation of guideline
- Supports Rogers’ definition
- Guideline format & complexity

Quality of evidence
- A: Well-designed study with less than 3 minor flaws
- B: Well-designed study with < 5 minor flaws or small sample size
- C: Study with > 5 minor flaws
- D: Poorly designed study with major flaws that raise serious questions about believability of results

Table 1: Systematic Review of Innovation Complexity in Clinical Practice Guidelines

<table>
<thead>
<tr>
<th>Study</th>
<th>Design</th>
<th>Sample</th>
<th>Theoretical Definitions of Complexity</th>
<th>Level &amp; Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand, 2005</td>
<td>Cross sectional survey</td>
<td>318 practitioners (nurses, physicians, allied health personnel)</td>
<td>All patients at 1 hospital, Australia</td>
<td>X</td>
</tr>
<tr>
<td>Gillis &amp; Lomas, 1994</td>
<td>Retrospective review of guideline compliance rates</td>
<td>22 English language studies (physicians, multiple specialties)</td>
<td>All patients at 1 hospital, Australia</td>
<td>X</td>
</tr>
<tr>
<td>Grol, 1992</td>
<td>Retrospective review of guideline recommendations</td>
<td>30 general practitioners (physicians)</td>
<td>All patients at 1 hospital, Australia</td>
<td>X</td>
</tr>
<tr>
<td>Jones, 2007</td>
<td>Qualitative interviews to explore national interaction guidelines</td>
<td>78 practitioners (nurses, physicians, allied health personnel)</td>
<td>All patients at 1 hospital, Canada</td>
<td>X</td>
</tr>
<tr>
<td>Simms, 2007a</td>
<td>Qualitative interviews, grounded theory</td>
<td>44 practitioners (nurses, physicians, respiratory therapists)</td>
<td>All patients at 1 hospital, Canada</td>
<td>X</td>
</tr>
<tr>
<td>Simms, 2007b</td>
<td>Qualitative interviews, grounded theory</td>
<td>38 practitioners (nurses, physicians, respiratory therapists)</td>
<td>All patients at 1 hospital, Canada</td>
<td>X</td>
</tr>
<tr>
<td>Pogreschina, 2008</td>
<td>Secondary analysis of cross sectional survey</td>
<td>3393 practitioners (nurses, physicians, allied health personnel)</td>
<td>All patients at 1 hospital, Canada</td>
<td>X</td>
</tr>
</tbody>
</table>

Evidence Hierarchy
- Level I: Systematic review of controlled studies
- Level II: Systematic review of multiple quantitative studies
- Level III: Experimental studies
- Level IV: Quasi-experimental studies
- Level V: Non-experimental studies (correlational, descriptive research)
- Level VI: Systematically obtained, verifiable, high-quality data
- Level VII: Consensus opinion of respected authorities

References
Example: Qualitative Project

A Global Health Experience: Women’s Health in Peru

Saundra Turner, EdD, APRN, BC; Marguerite Murphy, DNP, RN; Gayle Bentley, DNP, RN

Medical College of Georgia, School of Nursing, Augusta, GA

Introduction

The term global health not only relates to the planet’s overall health, but also the interconnectedness and interdependence of the human population on each person’s health. 

Although nursing students are aware of our global society via day-to-day experiences with mass communication and social networking, seldom do they personally experience the cultural realities of basic health care needs facing the world’s population.

Nursing students in the United States rarely have the opportunity to observe how environment and culture affect the spread of disease in less affluent countries. Therefore, the purpose of this global health experience in Peru was to offer an extraordinary opportunity for students at multiple levels (BSN, CNL, FNP, DNP) to work together caring for patients within both urban clinics and rural villages.

These students were able to observe the differences, as well as the sameness, of humanity from a unique perspective and experience the rewards of connecting with people from a different culture through their nursing care.

Background

Current Global Issues

- Global warming
- Cross-border pollution, financial crises
- International crime

Global Spread of Disease

- Malaria
- Smallpox, measles, yellow fever, typhus, influenza, syphilis
- HIV/AIDS
- EBOLA
- SARS
- West Nile Virus
- Swine Flu

Women’s Health in Peru / Indigenous Incan population:

- A leading cause of death is cervical cancer
- Lack of Pap screening and follow-up care are major issues in this county
- The use of indigo wood stoves for cooking may be influential in promoting the risk for cervical cancer in these women (Cervical cancer research findings)
- Non-profit organizations, such as The International Cervical Cancer Foundation (http://www.intercul.org) are working to decrease the incidence of cervical cancer and reduce mortality in Peruvian women.

The nursing students participating in this global experience learned about performing Pap smears, observed cervical biopsies and surgeries, evaluate vaginal infections, breast exams, blood pressure and glucose screenings, and community assessments. These students also had an opportunity to tour local hospitals and orphanages.

Summary

The students found this global health trip to be a positive life-changing experience.

Highlights included:

- Caring for patients from other cultures
- Working with students from other nursing levels and disciplines
- Exposure to a new language and culture out of one’s comfort zone

Recommendations

- Establish a fact of travel that ensures language impact in the community of interest
- Formal integration of global experiences in all levels of nursing curricula
- Content prior to clinical experience to help prepare students before their trip

Acknowledgments

The authors would like to thank Dr. Carlen Fornell and the CerviCusco clinic staff for their assistance with this global health experience. Also, thank you to Dr. Autumn Schnieder for her assistance with this paper.

References


FOLLOW THE DIRECTIONS!!!!

• The mounting board size for your poster will be always given in the directions for a conference presentation.

• **Board size determines poster’s size!**

• Any questions, contact person in charge to make sure you understand their directions.

• Posters look awful if the poster does not match the mounting board size.
Orientation of Poster

• Poster orientation based on board dimensions

• Will the poster be landscape?

• Or portrait?
Printing Posters

• **Decide where you will print your poster!**

• Different services have different size poster printers (aka plotters)

• Typical printer sizes either 36 or 42 inches

  – **The CON poster printer is 42 inches.**

  – **Therefore, either the width or the length of the poster must be 42 inches for CON to print your poster!**

• Plan ahead. May take $\geq 1$ week to have the poster printed for you!
Using Color

• Use color to effectively highlight **data**!
  – Data is where you want the audience’s eyes to go
  – Images to illustrate underlying concept

• White background
  – Most professional, less obtrusive
  – Only use black-colored text
    • May sparingly use color to emphasize a word or two

• **Don’t be cute!**
  – This is not a high school project!
How to Start

- **CON faculty & students**
  - Once you have notified the Center for Nursing Research staff that you are presenting a poster, they will send you the properly-sized GRU-approved template based on conference requirements.

However, if you need to start from scratch…

- Open a new slide file, once you have opened the Powerpoint software program on your computer.

- Customize the size of your Powerpoint slide.
  - Starting at the Top Menu:
    - Click on Design, Page Setup, Custom, then insert page size and orientation

- Save your file!
Basic Components

• Introduction: Contains background
  – Last paragraph contains purpose statement
• Methodology
• Data Results
• Conclusion
• Research or Clinical (Nursing) Implications
• References: Most important ones; usually ≤ 5
• Acknowledgments
  – Thank any one assisting with the study/project
  – Financial sponsors
Text

• All words written via “Insert Text Box”
• Use only sans serif fonts
  – e.g., Ariel, Verdana
  – Font typefaces are either serif or sans serif (without serifs)
  – Serif fonts (e.g., Times Roman) are difficult to read because include small decorative line to embellish main strokes of an alphabetical letter.
  – Sans serif fonts have no embellishments
Font Size

• Start with these font sizes:
  – Title: 78 point
  – Author(s): 66 point
  – Institution: 54 point
  – Section Title: 54 point
  – Sections themselves: 32 point

• May go higher or lower font size depending on amount of text trying to fit into text box
Disparities in Diabetes Education

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Medical College of Georgia, School of Nursing, Athens, Georgia, USA

Introduction

Diabetes is one of America’s most expensive health conditions, accounting for $1 of every $5 spent on health care. Furthermore, the incidence of diabetes among adults over 65 years has increased from 493,000 to 1.5 million since 1980. Low socioeconomic status (SES) and minority groups in the US present with:

- Higher rates of diabetes
- Higher rates of complications and health care utilization
- Poorer diabetes control

Additionally, over 15% of non-Hispanic adults with diabetes are uninsured in the US.

Research has shown that Diabetes Self Management Education (DSME) is a critical component of patient care that improves patient outcomes, prevents complications, decreases morbidity and mortality rates. Despite decreasing economic burden in high risk patient groups, DSME is not covered under Medicaid benefits in some states.

The purpose of this project was to examine accessibility, availability, and quality of DSME for uninsured and underserved adults living in an impoverished community. This community is defined as being among the top 5 most at-risk US cities with the highest poverty levels and 19% of its adult population has no health care insurance.

Methods

A descriptive model assessment was conducted in healthcare settings serving uninsured adults with diabetes. This assessment utilized an interview guide to assess the accessibility, availability, and quality of each program. Interviews were conducted with 22 healthcare providers, educators, and administrators at 8 sites.

An interview guide was used to capture descriptive characteristics of the care and services provided, adherence to Standards for DSME programs, continuity of care, organizational function, and demographic information. Investigator's ratings on the Assessment of Primary Care Resources and Supports for Chronic Disease (PCRS) also were based on interview data.

Education Provided:
- 88% of education done by care provider
- Range of education time:
  - ED: 2-15 min (median 10)
  - PIC: 2-120 min (mean 34)
  - Home-based DSME: 120 min
- Visit duration: 15-300 minutes at all sites
- PC Clinics:
  - Visit duration: 15 min - 1 hr
  - Frequency of visits: 3-6 months

Participants (n = 22)

<table>
<thead>
<tr>
<th>Profession</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admin</td>
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<tr>
<td>MD</td>
<td>5</td>
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<tr>
<td>MSW</td>
<td>1</td>
</tr>
<tr>
<td>RN</td>
<td>2</td>
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<tr>
<td>Staff RN</td>
<td>4</td>
</tr>
<tr>
<td>RN ID</td>
<td>4</td>
</tr>
<tr>
<td>NP</td>
<td>1</td>
</tr>
</tbody>
</table>

Conclusions

- This project found that 20% of adults with diabetes are uninsured or underinsured in this community.
- Inadequate access to DSME. At 5 sites, there was no direct access to DSME. Uninsured patients had access to 2 programs; persons on Medicaid had access to 1 program. Certified Diabetes Educators (CDE) were available at 3 sites.
- Limited availability. Only 2 programs had evening hours. Only 1 program had a process for those on Medicare.
- Quality of programs:
  - Adherence to ADA Guidelines was limited. Only ADA recognized DSME programs met all criteria. Only 1 in 9 uninsured adults received ADA Standards of Care.
  - Overall PCRS ratings showed both limited organizational and patient support across settings. The highest PCRS ratings were for Certified Diabetes Educators (RDN or RD) in ADA recognized programs.
  - Education was limited to clinical encounters with the provider, which were infrequent and variable in duration.

Recommendations: Utilize evidence-based practice models to improve access and DSME availability, and reduce health disparities for people with diabetes.

Acknowledgment

The authors thank Dr. Autumn Schumacher for her assistance with this poster.
Why large font sizes?

- Need to read all text from 3-4 feet away!
  - Plus most visitors are older & wear bifocals
- Title most important – so it’s the biggest font
  - Want to attract visitors to your poster!
- Authors next in importance
  - Get credit for your work!
- Institution / place of employment
  - Folks want to know where you came from
  - Use only approved institutional logos
Words of Wisdom

In general, I recommend:

• Do not laminate poster
  – Waste $$$$ since posters typically only used once

• Avoid using online poster templates
  – Not flexible and may not allow following of directions
  – Learn to “play” with Powerpoint software program
    • More work you do yourself ↓ printing cost!

• Do not wait until the last minute!
  – Designing & developing a poster is a lot of work
  – Give yourself at least 2-3 weeks!
More Advice

• Photos:
  – Use only **high quality digital** photos
    • minimum 900 KB size; > 1 MB preferred
  – Only use “Insert” function in menu
    • DO NOT copy and paste images
    • makes file size too large
    • Do not drag corner of image. To keep aspect ratio, Right Click mouse button, then use Size in menu
  – Avoid using PDF documents if possible
    – If absolutely necessary, **use high digital quality**
    – Otherwise will have blurry image when blown up on poster
  – Check quality (i.e., How blurry is image?) using ZOOM under View in top menu or slide at lower right corner.
Photo / Image Demonstration

High Resolution

Low Resolution
More Advice (again)

• Copy and paste text from the original source
  – e.g., any of the MS Office software products
  – Resize text as necessary after copy/paste
  – Do not copy/paste from a low-resolution PDF documents or low-resolution images from Internet (too blurry)

• Do graphs and tables in poster itself
  – Much more efficient & is easy to do
Insert a graph in your poster via “Insert Chart” function in Top Menu. Then follow the directions...
Useful Internet Resources

• Academic class site:
  http://people.eku.edu/ritchisong/posterpres.html

• Commercial site:
ANNOUNCEMENT!

- The GRU Office of Communication and Marketing has mandated that all College of Nursing faculty and students use the university-approved templates designed specifically for the College of Nursing.

- Obtain a template from the Center for Nursing Research staff
Proposed CON Poster Policy

• If presenting a conference poster presentation, no cost (i.e., free to you) services available for all CON faculty and graduate students for conference poster presentations

• Services include:

  – Peer review
  – Refining poster after you have done 1st draft
  – Teaching you tricks of the trade so you can better help yourself in the future
  – Poster printing with storage tube
Procedure

• Email the staff in the Center for Nursing Research as soon as notified abstract accepted for conference poster presentation.
  – Send them copy of abstract acceptance for poster presentation & information for poster presentation

• They will send you correct-size approved template and determine timeline for poster development and printing.

• Once you have submitted 1st draft, they will work with you to refine the poster prior to printing

• Goal: CON have a standard, coordinated poster “appearance” at conferences
Contact me at aschumacher@gru.edu or Chelsey Lemons ccarr4@gru.edu in the Center for Nursing Research for further information or if you have any questions.