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Scientific Posters

The elements

1

Elements

- Title
- Author(s) + affiliation
- Abstract/Introduction/Background
- Method(s)
- Data/results
- Conclusion(s)
- References
- Acknowledgements

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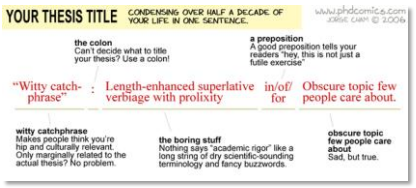
2

Element: title

- Must be very interesting
  - conveys of what your poster is about
  - if acceptable for the conference/ audience make the title catchy to get people's attention (provocative…)
  - Audience must be tempted from a distance
- Visible and readable at 5 m
- Concise
  - If too long, make it shorter, reformulate
  - Do not decrease the font size
  - Avoid the use of '**:**'



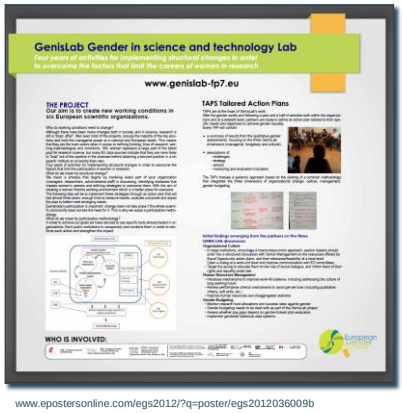
Element: title

- Idea: the title should be the simple answer to the main issue that your poster addresses
  www.lisabmarshall.com/uncategorized/sample-scientific-posters/
- *Compare:*
  - *"A Study of Automobile Emissions Generated at Drive Up Windows"*
  - *"5% of Air Pollution Derives from Cars Idling at Drive Up Windows"*
  - *"5% of Air Pollution from Idling at Drive Up Windows"*
  - *"Drivers Spend an Average of 7.2 Minutes Idling at Drive Up Windows"*
  - *"Drive Up Windows pollute and frustrate"*

Element: title

- Put it on top
  - Another spot might be interesting
  - With people walking around, the lower part might be obscured
- Do not use uppercase only
  - Shouting
  - Harder to read

Element: title



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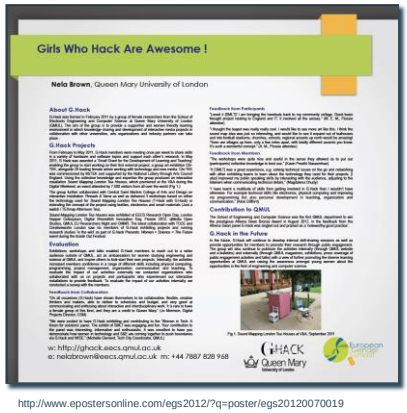

http://www.epostersonline.com/egs2012/?q=poster/egs20120070019

Element: authors/affiliation

- Write the first name in full
  - Initials and titles are not needed
  - A photo of the person who is presenting the poster, or highlight / underline the name
  - Check with advisor on the list of the collaborators
    - Who is to credit?
- Do not forget the affiliation

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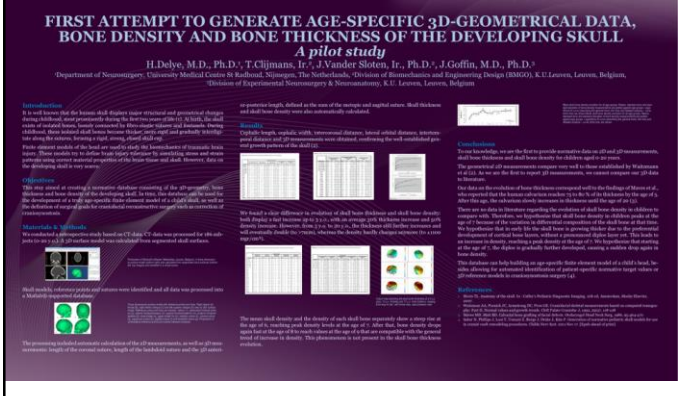

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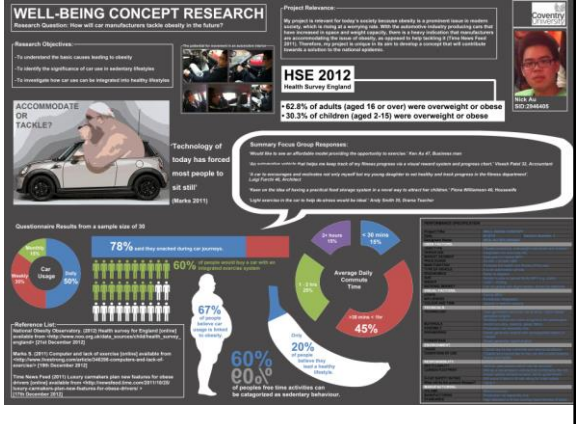

http://nickaudesign.me/2013/01/15/my-research-poster/

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8

Element: abstract

- If it is not required, DON'T.
- Most of the times your abstract will be printed in the conference catalog.
- If you do include an abstract in your poster try to make it very short. It should be a very brief summary of the poster

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Element: introduction

- Engage your audience – give some background
  - Essential points / positioning the research
  - Explains why this work is important
  - Minimum of background information and definitions.
  - Provide a description and justification of your experimental method(s)
  - Include your hypothesis.
- Must be a help to the structure of the poster
- Summary150 – 200 words

- ***C**omplete **C**lear **C**oncise **C**ohesive*

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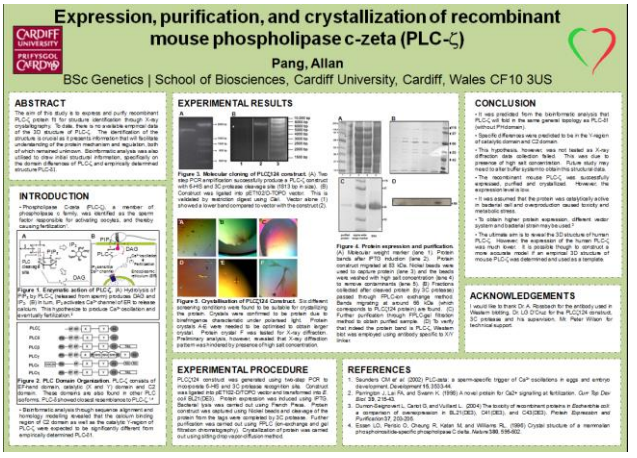

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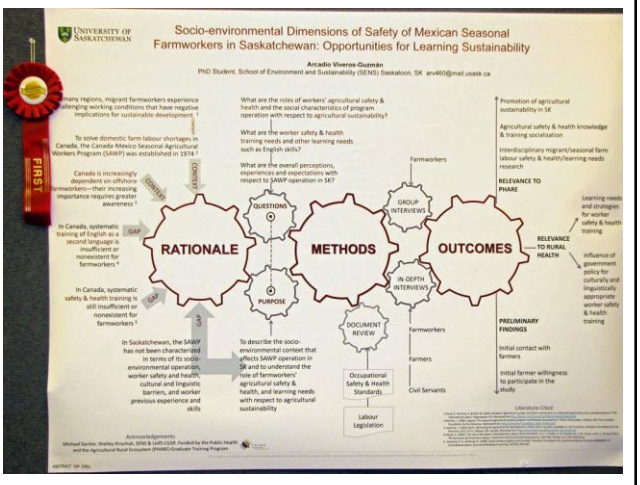

crhrs-scrsr.usask.ca/images/2011awards/2011-Student-1-Arcadio.jpg

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11

Element: data/results – text

- Keep it short, simple and clear
- Remove all non-essential information
- Avoid footnotes
- Avoid abbreviations, acronyms, jargon, …
- Use no more than 1000 words
- Use charts as visual eye-candy
- Rule-of-thumb:
  - 20% text
  - 40% graphics
  - 40% space
- Format might be domain dependent

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12

Element: data/results – text

The ideal anesthetic should quickly make the patient unconscious but allow a quick return to consciousness, have few side effects, and be safe to handle.

Ideal anesthetics

- Quick sedation
- Quick recovery
- Few side effects
- Safe to handle

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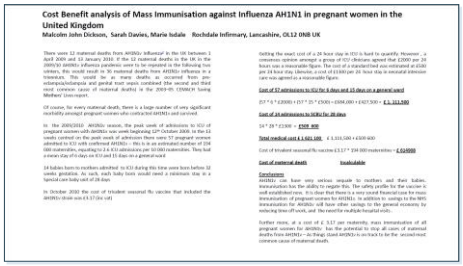
Element: data/results - text

- Too much text
- Boring

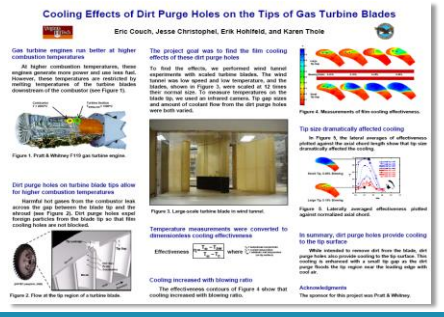


Cost Benefit analysis of Mass Immunisation against Influenza AH1N1 in pregnant women in the United Kingdom

Malcolm John Dickson, Sarah Davies, Marie Isdale Rochdale Infirmary, Lancashire, OL12 0NB UK

www.epostersonline.com/rcog2011/?q=node/1395

- Better, still some room for improvement



Cooling Effects of Dirt Purge Holes on the Tips of Gas Turbine Blades

Eric Couch, Jesse Christophel, Erik Hohlfeld, and Karen Thole

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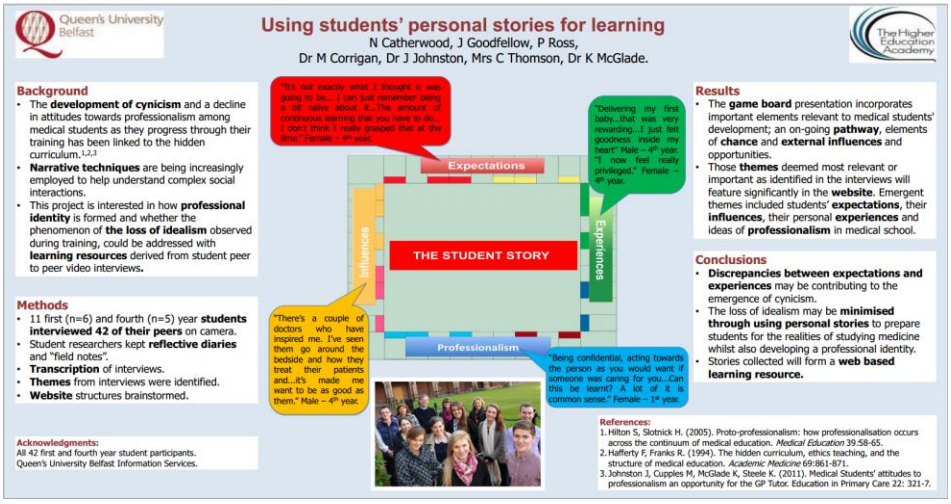

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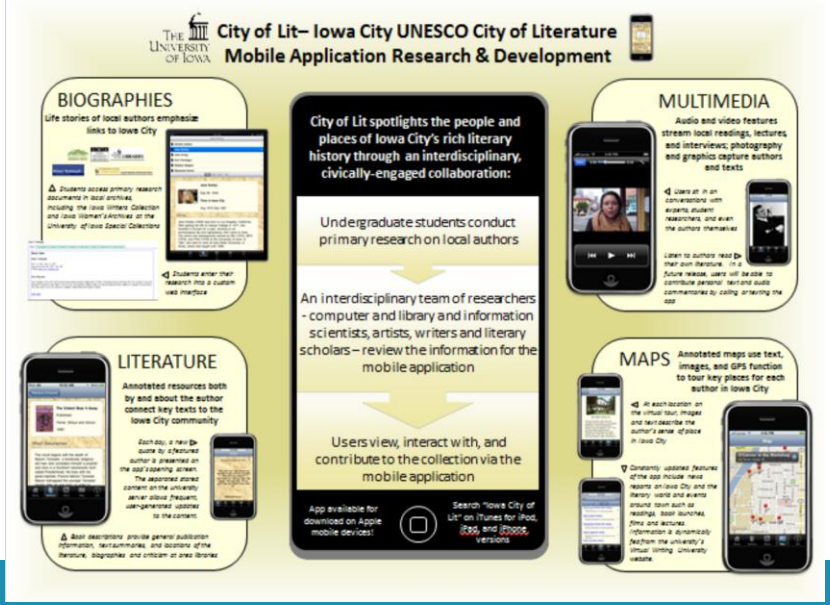

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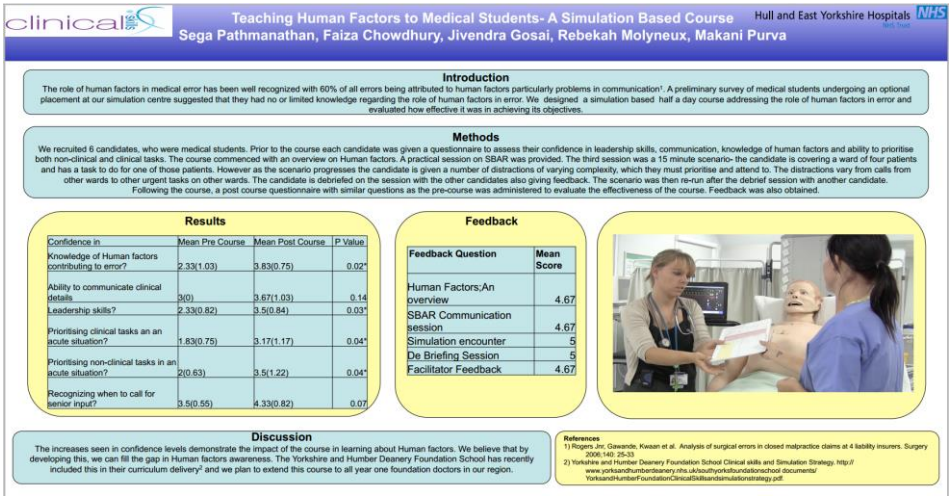
Element: data/results - charts

- Table:
  - Limited number of data
  - Label columns
- Charts:
  - Large set of data points
  - Do not forget to label plots, axes, …
- Charts must be readable at a distance of 2 m!
- Get all the charts in a uniform way, size



Teaching Human Factors to Medical Students- A Simulation Based Course

Sega Pathmanathan, Faiza Chowdhury, Jivendra Gosai, Rebekah Molyneux, Makani Purva

Hull and East Yorkshire Hospitals NHS

Introduction

The role of human factors in medical error has been well recognized with 60% of all errors being attributed to human factors particularly problems in communication[1]. A preliminary survey of medical students undergoing an optional placement at our simulation centre suggested that they had no or limited knowledge regarding the role of human factors in error. We designed a simulation based half a day course addressing the role of human factors in error and evaluated how effective it was in achieving its objectives.

Methods

We recruited 6 candidates, who were medical students. Prior to the course each candidate was given a questionnaire to assess their confidence in leadership skills, communication, knowledge of human factors and ability to prioritise both non-clinical and clinical tasks. The course commenced with an overview on Human factors. A practical session on SBAR was provided. The third session was a 15 minute scenario- the candidate is covering a ward of four patients and has a task to do for one of those patients. However as the scenario progresses the candidate is given a number of distractions of varying complexity, which they must prioritise and attend to. The distractions vary from calls from other wards to other urgent tasks on other wards. The candidate is debrieled on the session with the other candidates also giving feedback. The scenario was then re-run after the debrief session with another candidate. Following the course, a post course questionnaire with similar questions as the pre-course was administered to evaluate the effectiveness of the course. Feedback was also obtained.

Results

Confidence in	Mean Pre Course	Mean Post Course	P Value
Knowledge of Human factors contributing to error?	2.33(1.03)	3.83(0.75)	0.02*
Ability to communicate clinical details	3(0)	3.67(1.03)	0.14
Leadership skills?	2.33(0.82)	3.5(0.84)	0.03*
Prioritising clinical tasks an an acute situation?	1.83(0.75)	3.17(1.17)	0.04*
Prioritising non-clinical tasks in an acute situation?	2(0.63)	3.5(1.22)	0.04*
Recognizing when to call for senior input?	3.5(0.55)	4.33(0.82)	0.07

Feedback

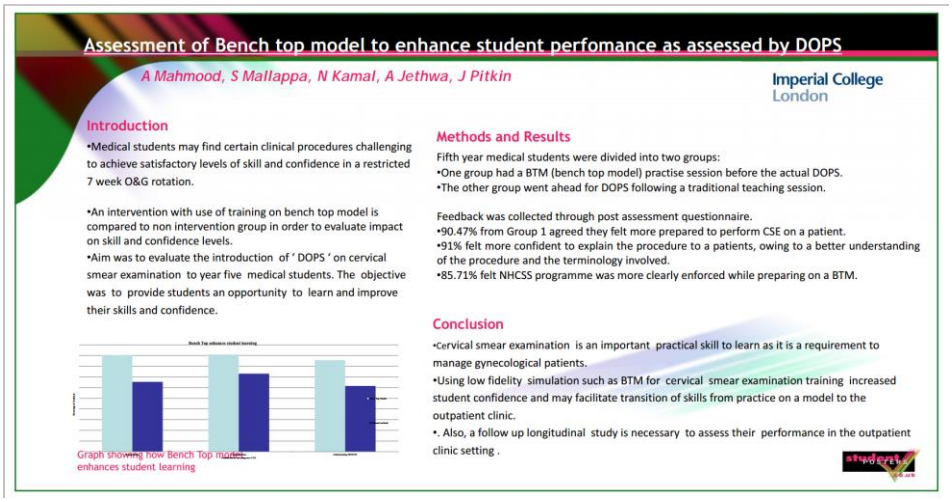
Feedback Question	Mean Score
Human Factors;An overview	4.67
SBAR Communication session	4.67
Simulation encounter	5
De Briefing Session	5
Facilitator Feedback	4.67

Discussion

The increases seen in confidence levels demonstrate the impact of the course in learning about Human factors. We believe that by developing this, we can fill the gap in Human factors awareness. The Yorkshire and Humber Deanery Foundation School has recently included this in their curriculum delivery[2] and we plan to extend this course to all year one foundation doctors in our region.

References
1) Rogers Jnr, Gawande, Kwaan et al. Analysis of surgical errors in closed malpractice claims at 4 liability insurers. Surgery 2006;140: 25-33
2) Yorkshire and Humber Deanery Foundation School Clinical skills and Simulation Strategy. http://www.yorksandhumberdeanery.nhs.uk/southyorksfoundationschool documents/YorksandHumberFoundationClinicalSkillsandsimulationstrategy.pdf.

http://www.epostersonline.com/asme2013/?q=node/83&posterview=true



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Element: visual elements

- Select what to visualize.
- Sketch it yourself.
  - Convert your sketches into digital.
  - Search online for images, based on your sketches.

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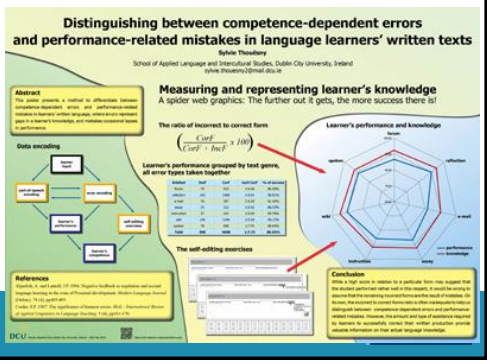
Element: conclusion

- Important part of the poster
  - Tie your conclusion back to your hypothesis and results.
  - Discuss why your findings are meaningful and relevant.
  - Include the future directions of your research.
  - Emphasize the important/strong points
- Use bullets to distinguish the different elements



Element: acknowledgements / references

- **Acknowledgements**
  - Funding,
  - Who was helping you out with your research
- **References**
  - Only the important – no literature study
  - Can be expanded during conversation

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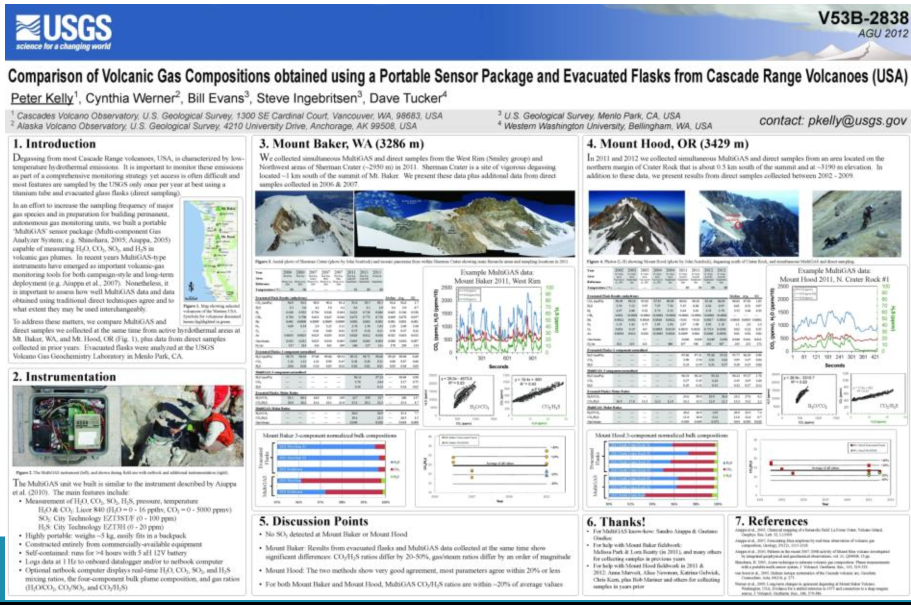
Element: acknowledgements / references



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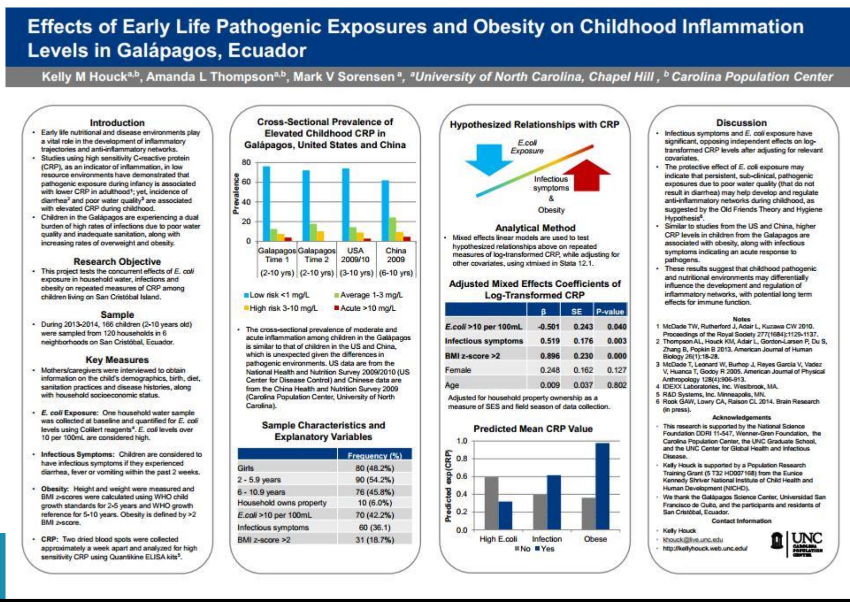
Element: acknowledgements / references



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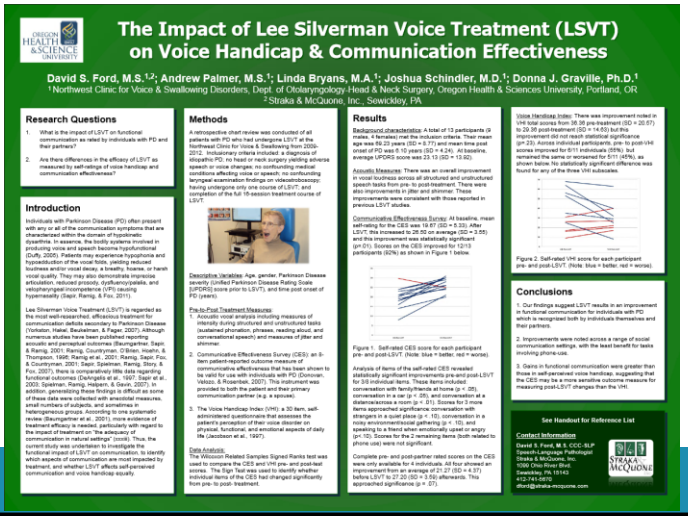
Element: contact information

- Include contact info:
  - E-mail
  - Phone



The Impact of Lee Silverman Voice Treatment (LSVT) on Voice Handicap & Communication Effectiveness

David S. Ford, M.S.[1,2]; Andrew Palmer, M.S.[1]; Linda Bryans, M.A.[1]; Joshua Schindler, M.D.[1]; Donna J. Graville, Ph.D.[1]
[1] Northwest Clinic for Voice & Swallowing Disorders, Dept. of Otolaryngology-Head & Neck Surgery, Oregon Health & Sciences University, Portland, OR
[2] Straka & McQuone, Inc., Sewickley, PA

Research Questions

1. What is the impact of LSVT on functional communication as rated by individuals with PD and their partners?
2. Are there differences in the efficacy of LSVT as measured by self-ratings of voice handicap and communication effectiveness?

Introduction

Individuals with Parkinson Disease (PD) often present with any or all of the communication symptoms that are characterized within the domain of hypokinetic dysarthria. In essence, the bodily systems involved in producing voice and speech become hypofunctional (Duffy, 2005). Patients may experience hypophonia and hyposeduction of the vocal folds, yielding reduced loudness and/or vocal decay; a breathy, hoarse, or harsh vocal quality. They may also demonstrate imprecise articulation, reduced prosody, dysfluency/palilalia, and velopharyngeal incompetence (VPI) causing hypernasality (Sapir, Ramig, & Fox, 2011).

Lee Silverman Voice Treatment (LSVT) is regarded as the most well-researched, efficacious treatment for communication deficits secondary to Parkinson Disease (Yorkston, Hakel, Beukelman, & Fager, 2007). Although numerous studies have been published reporting acoustic and perceptual outcomes (Baumgartner, Sapir, & Ramig, 2001; Ramig, Countryman, O'Brien, Hoehn, & Thompson, 1996; Ramig et al., 2001; Ramig, Sapir, Fox, & Countryman, 2001; Sapir, Spielman, Ramig, Story, & Fox, 2007), there is comparatively little data regarding functional outcomes (DeAngelis et al., 1997; Sapir et al., 2003; Spielman, Ramig, Halpern, & Gavin, 2007). In addition, generalizing these findings is difficult as some of these data were collected with anecdotal measures, small numbers of subjects, and sometimes in heterogeneous groups. According to one systematic review, "there is currently a lack of clear evidence of treatment efficacy is needed, particularly with regard to the impact of treatment on "the adequacy of communication in natural settings" (ibid). Thus, the current study was undertaken to investigate the functional impact of LSVT on communication, to identify which aspects of communication are most impacted by treatment, and whether LSVT affects self-perceived communication and voice handicap equally.

Methods

A retrospective chart review was conducted of all patients with PD who had undergone LSVT at the Northwest Clinic for Voice & Swallowing from 2009-2012. Inclusion criteria included: a diagnosis of idiopathic PD; no head or neck surgery potentially adverse to speech or voice; and no co-occurring medical conditions affecting voice or speech; no confounding laryngeal examination findings on videostroboscopy; having undergone only one course of LSVT; and completion of the full 16-session treatment course of LSVT.

Descriptive Variables: Age, gender, Parkinson Disease severity (Unified Parkinson Disease Rating Scale [UPDRS] score prior to LSVT), and time post onset of PD (years).

Pre-to-Post Treatment Measures:

1. Acoustic vocal analysis including measures of intensity during structured and unstructured tasks (sustained phonation, phrases, reading aloud, and conversational speech) and measures of jitter and shimmer.
2. Communicative-Effectiveness Survey (CES): an 8-item patient-reported outcome measure of communicative effectiveness that has been shown to be valid for use with individuals with PD (Donovan, Velozo, & Rosenbek, 2007). This instrument was provided to both the patient and their primary communication partner (e.g. a spouse).
3. The Voice Handicap Index (VHI): a 30 item, self-administered questionnaire that assesses the patient's perception of their voice disorder on physical, functional, and emotional aspects of daily life (Jacobson et al., 1997).

Data Analysis:
The Wilcoxon Related Samples Signed Ranks test was used to compare the CES and VHI pre- and post-test scores. The Sign Test was used to identify whether individual items of the CES had changed significantly from pre- to post- treatment.

Results

Background characteristics: A total of 13 participants (9 males, 4 females) met the inclusion criteria. Their mean age was 69.23 years (SD = 8.77) and mean time post onset of PD was 6.10 years (SD = 4.24). At baseline, average UPDRS score was 23.13 (SD = 13.92).

Acoustic Measures: There was an overall improvement in vocal loudness across all structured and unstructured speech tasks from pre- to post-treatment. There were also improvements in jitter and shimmer. These improvements were consistent with those reported in previous LSVT studies.

Communicative-Effectiveness Survey: At baseline, mean self-rating for the CES was 19.67 (SD = 5.33). After LSVT, this increased to 28.50 on average (SD = 3.55) and this improvement was statistically significant ($p < .01$). Scores on the CES improved for 12/13 participants (92%) as shown in Figure 1 below.

Figure 1. Self-rated CES score for each participant pre- and post-LSVT. (Note: blue = better, red = worse).

Analysis of items of the self-rated CES revealed statistically significant improvements pre-and post-LSVT for 3/8 individual items. These items included conversation with family/friends at home ($p < .05$), conversation in a car ($p < .05$), and conversation at a distance/across a room ($p < .01$). Scores for 3 more items approached significance: conversation with strangers in a quiet place ($p < .10$), conversation in a noisy environment/social gathering ($p < .10$), and speaking to a friend when emotionally upset or angry ($p < .10$). Scores for the 2 remaining items (both related to phone use) were not significant.

Complete pre- and post-partner rated scores on the CES were only available for 4 individuals. All four showed an improvement from an average of 21.27 (SD = 4.37) before LSVT to 27.20 (SD = 3.50) afterwards. This approached significance ($p = .07$).

Voice Handicap Index: There was improvement noted in VHI total scores from 38.38 pre-treatment (SD = 20.67) to 29.38 post-treatment (SD = 14.63) but this improvement did not reach statistical significance ($p = .23$). Across individual participants, pre- to post-VHI scores improved for 6/11 individuals (55%) but remained the same or worsened for 5/11 (45%), as shown below. No statistically significant difference was found for any of the three VHI subscales.

Figure 2. Self-rated VHI score for each participant pre- and post-LSVT. (Note: blue = better, red = worse).

Conclusions

1. Our findings suggest LSVT results in an improvement in functional communication for individuals with PD which is recognized both by individuals themselves and their partners.
2. Improvements were noted across a range of social communication settings, with the least benefit for tasks involving phone-use.
3. Gains in functional communication were greater than those in self-perceived voice handicap, suggesting that the CES may be a more sensitive outcome measure for measuring post-LSVT changes than the VHI.

See Handout for Reference List

Contact Information
David S. Ford, M.S. CCC-SLP
Speech-Language Pathologist
Straka & McQuone, Inc.
1099 Ohio River Blvd.
Sewickley, PA 15143
412-741-5970
dford@straka-mcquone.com

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