Writing a Scientific Abstract

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Agenda

1. Researching your audience
2. Abstract components
   - Motivation or problem statement
   - Methods/procedures/approach
   - Results/findings/product
   - Conclusions/implications
3. Abstract examples
4. Practice

Researching the Audience

- The first step to developing your abstract is to gather information about your audience and its needs!
- Who are you trying to reach with your message?

Who needs to get your message?

- Other health professionals
- Other academics/researchers
- Policy makers/government/funding agencies
- Consumers/ general public (via media, newsletter, or directly)
- Your study participants?

A.U.D.I.E.N.C.E

- **A**nalyze – who the audience is
- **U**nderstand – the audience's knowledge of your subject
- **D**emographics – of the audience
- **I**nterests – of the audience
- **E**nvironment – that you'll be presenting in
- **N**eeds – of the audience
- **C**ustomization – specifics that will help you with the audience
- **E**xpectation – of your audience

http://www.trainingmag.com/article/audience-research-your-audience

What is an Abstract?

- A short summary of your completed research study or project.
  - The most commonly read section of scientific paper.
  - A well written abstract will motivate the reader to read more than just the abstract!

Abstract Checklist

- ✓ Motivation or problem statement
- ✓ Methods/procedure/approach
- ✓ Results/findings/product
- ✓ Conclusions/implications

Abstract Checklist

- ✓ Motivation or problem statement
  - Why is the work important?
  - What is the problem that you attempted to solve?

Abstract Checklist

- ✓ Methods/procedure/approach
  - What did you do?
  - How did you do it?

Abstract Checklist

- ✓ Results/findings/product
  - What did you learn?

Abstract Checklist

- ✓ Conclusions/implications
  - What are the implications of your findings?
  - How do your findings relate to the problem that you are trying to solve?

Example: Why Do Patients in Acute Care Hospitals Fall? Can Falls Be Prevented?

- **Motivation or problem statement**

  Obtain the views of nurses and assistants as to why patients in acute care hospitals fall.

  Despite a large quantitative evidence base for guiding fall risk assessment and not needing highly technical, scarce, or expensive equipment to prevent falls, falls are serious problems in hospitals.

- **Methods/procedure/approach**

  Basic content analysis methods were used to interpret descriptive data from 4 focus groups with nurses (n = 23) and 4 with assistants (n = 19). A 2-person consensus approach was used for analysis.

- **Results/findings/product**

  Positive and negative components of 6 concepts—patient report, information access, signage, environment, teamwork, and involving patient/family—formed 2 core categories: knowledge/communication and capability/actions that are facilitators or barriers, respectively, to preventing falls.

- **Conclusions/implications**

  Two conditions are required to reduce patient falls. A patient care plan including current and accurate fall risk status with associated tailored and feasible interventions needs to be easily and immediately accessible to all stakeholders (entire healthcare team, patients, and family). Second, stakeholders must use that information plus their own knowledge and skills and patient and hospital resources to carry out the plan.

Example: Fall Prevention in Acute Care Hospitals A Randomized Trial

- **Motivation/problem statement**
  Falls are a leading cause of injury and death. Hospitalization further increases risk. No evidence exists to support hospital-based strategies to reduce falls. The purpose of this study was to investigate whether a fall prevention tool kit (FPTK) decreases patient falls in hospitals.
- **Methods**
  Cluster randomized study comparing patient fall rates in 4 urban hospitals in usual care (4 units/5104 patients) or intervention (4 units/5160 patients) units. The FPTK software tailored fall prevention interventions to address patients' specific determinants of fall risk and produced bed posters, patient education handouts, and plans of care. Primary outcome was patient falls/1000 patient-days. Secondary outcome was fall-related injuries.
- **Results/findings**
  The number of patients with falls differed between control (n=87) and intervention (n=67) units (*P*=.02). Fall rates were significantly higher in control units (4.18 [95% confidence interval {CI}, 3.45-5.06] per 1000 patient-days) than in intervention units (3.15 [95% CI, 2.54-3.90] per 1000 patient-days; *P*=.04). The FPTK was particularly effective with patients >age 64 (2.08 [95% CI, 0.61-3.56] per 1000 patient-days; *P*=.003). No significant effect was noted in fall-related injuries.
- **Conclusions/implications**
  The use of a FPTK in hospital units compared with usual care significantly reduced patient falls.

Example: Longitudinal Plan of Care Vision Versus Reality

- **Motivation/problem statement**

  As health care organizations move toward meaningful use of electronic health records, Longitudinal Plans of Care (LPOC) may improve communication and coordination as patients move across care transitions. Our objective was to determine the current state of communication of LPOC across settings and levels of care.

- **Methods**

  We conducted surveys and interviews with professionals from emergency departments, acute care hospitals, skilled nursing facilities, and home health agency settings within six regions in the US. We coded transcripts according to Broad Approaches to Care Coordination as defined by AHRQ to assess the use of a proactive POC within Broad Approaches and the degree to which use of the POC in practice meets the definition of a LPOC.

- **Results/findings**

  Participants reported that LPOC do not exist in current state. We found 1)few interdisciplinary, patient-centered POCs in practice, 2)none were shared longitudinally, 3)wide variation exists in the types and formats of POC information communicated as patients transitioned, 4)most common formats: paper and fax.

- **Conclusions/implications**

  The use of LPOC to support care transitions is suboptimal. Strategies are needed to transform the LPOC from vision to reality. These findings have implications for data reuse, interoperability, and achieving widespread adoption of interdisciplinary, patient-centric, LPOC.

Abstract Template

- ✓Motivation or problem statement
- ✓Methods/procedure/approach
- ✓Results/findings/product
- ✓Conclusions/implications

Title:	
Authors:	
Body:	(limit **200 words**, Arial 10 point, single spaced text anything above 200 will be cut off)
Lay Summary (please include clinical	This is REQUIRED. Without the lay summary you will *not* be included in the poster session. Keep in mind these posters and abstracts will be viewed by the lay public. (limit **200 words**, Arial 10 point, single spaced text anything above 200 will be cut off)

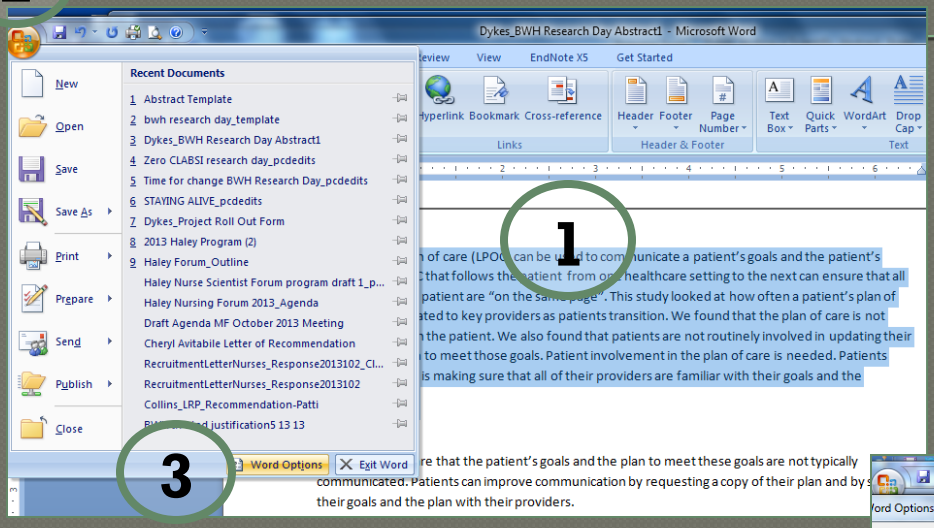
Same content as above but restate in language that your grandmother or other family member who is NOT in the healthcare field would understand (no technical terms).

Lay Summary Example

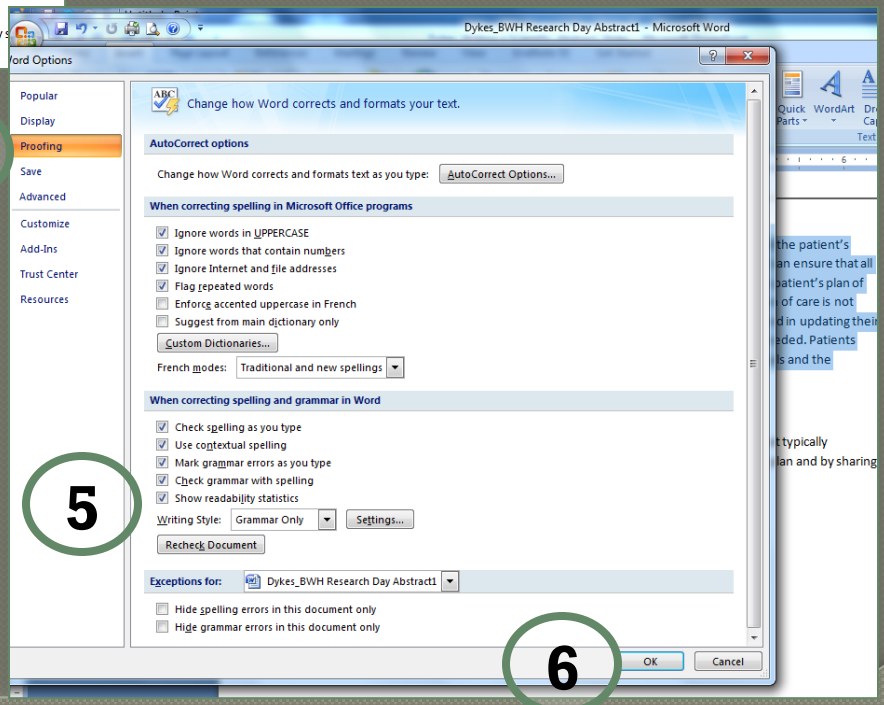
- A longitudinal plan of care (LPOC) can be used to communicate a patient's goals and their progress. An LPOC that follows the patient across healthcare settings helps providers and the patients get "on the same page". We studied how often a patient's plan of care is communicated to providers as patients transition. We found that the plan is often not send with the patient. Also, patients are not routinely involved in updating their goals and the plan to meet those goals. Patient involvement in the plan of care is needed. Patients should play a role is making sure that all of their providers are familiar with their goals and the associated plan.

Goal: About a 6th grade level, not above 8th grade level.

Checking Readability in MS Word



1. Select the text that you want to check
2. Click on the MS Office button
3. Select “word options”



4. Select “proofing”
5. Select “show readability statistics”
6. Select “OK”
7. Run spell check

References

- **Philip Koopman. (1997). How to Write an Abstract. Carnegie Mellon University**
  Accessed August 2012 from:
  http://www.ece.cmu.edu/~koopman/essays/abstract.html
- Dykes PC, Carroll DL, Hurley AC, Benoit A, Middleton B. Why do patients in acute care hospitals fall? Can falls be prevented? J Nurs Adm. 2009 Jun; 39(6):299-304.
- Dykes PC, Carroll DL, Hurley A, Lipsitz S, Benoit A, Chang F, Meltzer S, Tsurikova R, Zuyov L, Middleton B. Fall prevention in acute care hospitals: a randomized trial. JAMA. 2010 Nov 3; 304(17):1912-8.