Disseminating Quality Initiative Reports
from planning to publication

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Course Learning Objectives:

Following completion of this program, the learner will be able to:
I. Describe the elements of a generalizable quality initiative project
II. Describe several approaches to utilizing theory and evidence to establish the context of a Quality initiative Report
III. State the location of author guidelines for the JACPT
Some good examples


Sources for the guidelines


## Human Subjects Research vs. QI


<table>
<thead>
<tr>
<th>Human Subjects Research</th>
<th>Quality Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>Designed to implement knowledge, or assess a process or program as judged by established/accepted standards</td>
</tr>
<tr>
<td><strong>Starting Point</strong></td>
<td>Knowledge-seeking is part of the ongoing delivery of health care</td>
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<tr>
<td><strong>Design</strong></td>
<td>Adaptive, iterative design</td>
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<tr>
<td><strong>Benefits</strong></td>
<td>Directly benefits a process, system or program; might or might not benefit patients</td>
</tr>
<tr>
<td><strong>Risks</strong></td>
<td>Does not increase risk to patients</td>
</tr>
<tr>
<td><strong>Participant Obligation</strong></td>
<td>Responsibility to participate as component of care</td>
</tr>
<tr>
<td><strong>Endpoint</strong></td>
<td>Improve a program, process or system</td>
</tr>
<tr>
<td><strong>Analysis</strong></td>
<td>Compare new program, process or system to established program, process or system</td>
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Human Subjects Research vs. QI

**Human Subjects Research:**
A **systematic investigation**, including research development, testing, evaluation, *(and dissemination)* designed to develop or **contribute to** generalizable knowledge.

**Quality Improvement (QI):**
Systematic, **data-guided activities** designed to bring about immediate **improvements in health delivery** in particular settings.
**Systematic investigation**

The Double-Blinded, Randomized, Placebo-Controlled, Clinical Trial
Tough to do well
Really tough to do in the context of clinical care (ethics)
  - Blinding
  - Randomization
  - Informed consent
  - Control conditions

Contribute to generalizable knowledge.
  - Quasi experimental studies
  - Cohort studies
  - Case studies

**Contribute to generalizable knowledge.**

Well described usual care “control”
  Consider a pre-intervention / pre-initiative data collection period

Well described patients/subjects
  - Age
  - Diagnosis (published criteria / imaging confirmed...)
  - Acuity (Level of care, chronology)
  - Severity (APACHE II, NIHSS, ESRD-SI)
  - Comorbidities (Charlson Co-Morbidity Index)
  - Cognition (MMSE)
Contribute to generalizable knowledge.

Strategically chosen patient outcome measures
  Standardized
  Clinically Feasible
Type of data (why FIM scores aren’t the best answer)
Prevalence in the literature
  TUG, 10 meter walk speed, Elderly Mobility Scale

Strategically presented results
  Always present a Pre and Post intervention Mean and SD

The Guidelines............
Title

Indicates that the article concerns the improvement of quality (broadly defined to include the safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity of care and the patient population or type of facility studied)

Safety and Feasibility of an Early Mobilization Program for Patients With Aneurysmal Subarachnoid Hemorrhage

Changing the Culture of a Large Multihospital Acute Care Therapy System to Value-Added Through Best Practice Guidelines: A Quality Improvement Project

Abstract

Describes the population (diagnosis, severity, acuity), intervention or assessment technique studied, comparison (if applicable) and the outcome used to determine effectiveness.

Present most important findings
- include changes in healthcare delivery measures if a pure QI
- include results of hypothesis testing if you a presenting a comparison
- include magnitude of changes if they are larger or smaller than those in the published research and if they exceed published MCID

Conclusion that answers the question presented in your purpose statement and / or title
Introduction

2. Background knowledge - Provides a brief, nonselective summary of current knowledge of the care problem being addressed.
- published literature on the condition and interventions / assessments
- descriptions of current standard of care (referenced)

3. Intended improvement /intervention
Describes the specific aim (changes/improvements in care processes) or
Describes the novel aspects of the nature of the intervention to be studied

Purpose statements

“The purpose of this study was to assess the effects of an early mobilization protocol on complication rates, ventilator days, and ICU and hospital LOS for patients admitted to a trauma and burn ICU (TBICU)”


“Based on this experience, a QI project was undertaken that focused on patients receiving mechanical ventilation for ≥4 days. Two major QI goals were (1) to improve patient sedation and delirium status and (2) to increase rehabilitation related consults and treatments in order to improve functional mobility.”

Methods What did you do?

6. Ethical issues Acknowledges IRB approval or provides rationale for exemption

7. Describe the intervention

   a. Materials: Describe any physical or informational materials used in the intervention, including those provided to participants or used in intervention delivery or in training of intervention providers.
   b. Procedures: Describe each of the procedures, activities,
   c. Describe the expertise, background of therapists involved in studied intervention and any specific training given prior to studied intervention
   d. Describe the modes of delivery (instruction only, one to one treatment, group treatment) of the intervention
   e. Describe the location(s) where the intervention occurred

Describe the expertise, background of therapists involved in studied intervention and any specific training given prior to studied intervention

“The 4 senior therapists who participated as mentors were each considered a clinical resource within the department and throughout the hospital. They demonstrated competence in all of the major patient care populations as well as a commitment to continuing education. (.....) In addition, each of these PTs was an APTA credentialed clinical instructor and 3 of these senior therapists had experience as adjunct faculty at a local university teaching within an academic physical therapy program.”

One of the senior therapists attended an educational series by the Institute for Leadership in Physical Therapy (LAMP) and shared the knowledge she gained at this 2-day conference with the other mentors.

d. Describe the modes of delivery (instruction only, one to one treatment, group treatment) of the intervention

“Initially, the MP consisted only of a weekly 30-minute meeting.”

” During multiple meeting frameworks were made available to the mentee. Options included (1) discussion of one particular patient or diagnosis, (2) discussion of a specific clinical question, (3) spontaneous discussion determined by the mentee, (4) discussion of every patient on the mentee's caseload, or (5) discussion limited to caseload prioritization.”


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Methods What did you do?

f. Describe the number of times the intervention was delivered and over what period of time including the number of sessions, their schedule, and their duration, intensity, or dose.

An administrator should be able to plan your intervention
A clinician should be able to reproduce your treatment
A reader should be able to decide if your intervention should (or should not) work and why
Methods What did you do?

g. Identifies the study design (for example, observational, quasi-experimental, experimental)

h. Describes aspects of the study design that specifically concerned internal validity (blinding) and external validity (randomization or stratification of subjects)

Methods What did you do?

11. Methods of evaluation
Describes instruments and procedures used to assess the effectiveness of implementation
AND / OR
Describes instruments and procedures used to assess the contributions of the intervention components factors to examine the effectiveness of the quality intervention, and patient outcomes

Reports efforts to validate and test reliability of assessment instruments (if you designed your own) and efforts to insure inter-rater reliability (if multiple clinicians are collecting data)

An in-service reviewing outcome measures is a minimum

12. Analysis
Provides details of qualitative and quantitative (statistical) methods used to draw inferences from the data

Choose hypothesis tests with care
Results What did you find?

13. Outcomes

a. Degree of success in implementation of intervention

b. Changes in processes of care

c. Changes in QI related outcomes (patient/staff satisfaction, service utilization, cost, care disparities, LOS, Re-admission rates, vent days, critical care days)

d. Changes observed in measures of patient outcome (morbidity, mortality, function)

e. Reports adverse events, unexpected results, problems, failures

f. Accounts for missing data

Changes in processes of care

<table>
<thead>
<tr>
<th></th>
<th>Preintervention</th>
<th>Postintervention (11/21/2013)</th>
<th>Post Follow-up Education (2/18/2014)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>October through November 21, 2013</td>
<td>January 2014 through February 17, 2014</td>
<td>February 18-28, 2014</td>
</tr>
<tr>
<td>Use of evidence-based fall prevention patient education</td>
<td>Use of falls BPG recommended outcome measure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PT: 0/80 (0.00%)</td>
<td>PT: 27/67 (40.30%)</td>
<td>PT: 6/10 (60.00%)</td>
<td></td>
</tr>
<tr>
<td>OT: 1/59 (1.69%)</td>
<td>OT: 7/63 (11.11%)</td>
<td>OT: 5/8 (62.50%)</td>
<td></td>
</tr>
</tbody>
</table>

Abbreviations: BPG, best practice guideline; OT, occupational therapist; PT, physical therapist.

Discussion What do the findings mean?

14. Summary statement
   • the most important successes and difficulties in implementing intervention
   • observed changes in care delivery or clinical outcomes.

   **Avoid overstating your findings** – you cannot make claims for causation or effectiveness

   **Claims for feasibility need to be qualified**

   This summary should directly address the study question

15. Compares and contrasts study results with relevant findings of others

   How are your results the same? How are they different?
   Speculate as to why

“Cherkin et al reported that providing education to clinicians did not enhance patient outcomes. Conversely, Fritz et al reviewed patient information retrospectively and classified patient records as adherent or non-adherent. They reported that patients who were treated in adherence to the guidelines showed greater improvement in disability and pain, and were more likely to achieve a successful physical therapy outcome than those receiving non-adherent care. Adherence to clinical guidelines was found to enhance clinical outcomes; however, our results demonstrated no enhancement in the outcomes as a result of the implementation of the CTA, which was supported by Bekkering et al study.”

Discussion
What do the findings mean?

16. Limitations

a. Considers possible sources of confounding, bias, or imprecision in design, measurement, and analysis that might have affected study outcomes

“The data collection was also subject to bias due to lack of masking.”

“The only metric of success was the perception of the mentees regarding the program’s value.”


b. Explores factors that could affect generalizability

“…. as a multifaceted QI project, we cannot determine which specific aspects (eg, changed sedation vs early PM&R) may be associated with the reduction in LOS, especially because prior literature for both interventions has demonstrated such beneficial effects.”


18. Conclusions

a. Summarizes most important finding(s) related to the study question

Title > Purpose Statement > Summary Statement > Conclusion

b. Considers overall practical usefulness of the intervention

Financial Cost, Labor Cost, Patient Satisfaction, Risk

c. Suggests implications of this report for further studies

Go beyond “more research, RCT, larger studies……..”

Try to speak to methodology, sampling, approach
Title: Safety and Feasibility of an Early Mobilization Program for Patients With Aneurysmal Subarachnoid Hemorrhage

Purpose Statement:
“The purpose of this study was to determine the safety and feasibility of an early mobilization program designed for patients with aneurysmal SAH.”

Summary Statement:
“With evidence suggesting the safety, feasibility, and efficacy of early mobilization programs for various patient populations, we developed an early mobilization program for patients with aneurysmal SAH to prevent the complications associated with immobility and critical illness that lead to cognitive, psychological, neuromuscular, and functional decline. Participation in the early mobilization program was feasible soon after aneurysm treatment and until discharge from the hospital.”

Conclusion:
“The results of this retrospective study suggest that an early mobilization program for patients with SAH is safe and feasible.”


Speak to methodology, sampling, approach ..............

“........this was a relatively small sample size limited to the main acute care hospital only. Future studies should consider taking samples from all locations in the health care system.”

“Information related to the effect of adherence to guidelines on a broader array of clinical outcomes would be valuable.”

Next steps

http://journals.lww.com/jacpt/Pages/default.aspx
JACPT: submission types

- Review articles
- Case reports
- Original studies (QI usually fits best here)
- Letters to the Editor

http://journals.lww.com/jacpt/Pages/default.aspx
JACPT: overview

- official journal of the Academy of Acute Care Physical Therapy.
- forum for information regarding the physical therapy needs of patients receiving acute care
- peer-reviewed journal

• **Audience of JACPT**: experienced and inexperienced clinicians (PT, PTA) and students.

JACPT: submissions

- Articles submitted are expected to be original work that has not been previously published and is not under consideration by another publication.
- Submit articles online (see next slides)

• **Follow instructions for authors!!!**
  - Available on JACPT website and printed in each copy
  - submit masked copy for peer review
JACPT: submission types

• Review articles
• Case reports
• Original studies (QI usually fits best here)
• Letters to the Editor

How to submit to JACPT

Instructions for authors at:

http://edmgr.ovid.com/jacpt/accounts/ifauth.htm
How to submit to JACPT

submission site at:

http://www.editorialmanager.com/jacpt/default.aspx

Overview of JACPT Peer Review

• Editor-in-Chief assesses fit of content for scope of JACPT.
• Editor-in-Chief sends masked copy to an Associate Editor and 2 Reviewers with appropriate expertise.
• Reviewers submit their decision and comments to Associate Editor.
Overview of JACPT Peer Review

- **Reviewer:** strengths and weaknesses, relevance to acute care PT practice, additional questions, recommendations for changes in content and/or structure, recommendations for increasing clarity and/or relevance. **NOT** copy-editing!
- Possible decisions: Accept, Accept with revision, Reject with suggestions for revision, Reject.

Overview of JACPT Peer Review

**Associate Editor:**

- reads masked copy and forms opinion.
- now has 2 sets of Reviewer comments/decision, plus own opinion.
- resolves any discrepancies and summarizes/highlights key changes needed, creates draft of decision letter.
- Editor-in-Chief reviews and sends decision letter with comments to corresponding author.
Overview of JACPT Peer Review

Decision letter possibilities:

• Accept - no further peer review

• Accept with Revision - Further peer review is likely not to be required; editor determines whether changes are satisfactory

• Reject with Suggestions for Revision - further peer review

• Reject - Author may choose to revise and resubmit the manuscript, but acceptance is unlikely.

Overview of JACPT Peer Review

Reject with Suggestions for Revision - Most common decision for initial submission.

• Make suggested changes, or describe why you feel they are unwarranted.

• Submit revised manuscript (still masked).

• Include a point-by-point response to the Decision Letter describing the changes you made (or did not make). More on this later, but be specific about what was changed, how it was changed, and where! A response of “This change was made” is not adequate.
Overview of JACPT Peer Review

Reject with Suggestions for Revision - Revision submitted.

- Revised manuscript is again reviewed by an Associate Editor and 2 Reviewers (try to make them the same, usually are).
- Same process, same possible outcomes.
- Two rounds of peer review (1 revision) is common, but so is three rounds of peer review (2 revisions).

Overview of JACPT Publication

- Once accepted for publication, JACPT copy-edits and formats the manuscript for publication.
- The author transfers copyright to JACPT.
- From first submission to acceptance is usually between 4-8 months.
Summary

• Remember: Rejection is the norm in academic publishing!! “Revise and resubmit” is a promising outcome.

• Writing is a skill, it requires knowledge and practice.

• Research is a skill, it also requires specialized knowledge.

Resources

• Experienced collaborators and/or mentors.

• JACPT Writing Scholarship
  • Year-long process. Feedback on outline and full draft before submitted to JACPT for peer review. Mentor gets a stipend.
  • Applications due June 1 yearly
  • http://www.acutept.org/page/WritingScholarships
Resources

A reviewer’s guide to ethics in publishing
During a recent online webinar, Publisher Jaap van Harten pinpointed exactly what a researcher is – and isn’t – responsible for when reviewing a paper.

By Dr Jaap van Harten  Posted on 13 August 2015

• Peer review guide
  • http://senseaboutscience.org/activities/peer-review-the-nuts-and-bolts/

• Ethics in peer review
  • https://www.elsevier.com/reviewers-update/story/publishing-ethics/a-reviewers-guide-to-publishing-ethics

• Full publication process
  • https://www.elsevier.com/reviewers-update/home/featured-article/from-submission-to-sharing-the-life-cycle-of-an-article