

## **OTS 288 – Outcomes measurement and monitoring: Using data to inform practice**

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Office hours (By appointment)

Office: 2<sup>nd</sup> floor, Department of Occupational Therapy

Class Meeting Time & Place: Tuesday, 5:30-8:30 pm, Room 4, Department of Occupational Therapy

Course materials, assignments & lectures will be posted on TRUNK: <https://trunk.tufts.edu/xsl-portal>

### **COURSE DESCRIPTION:**

In this course students will learn about and develop skills in outcome measurement, management and monitoring to assist with program / practice related decisions and improvements. Different models for designing outcome studies will be discussed with emphasis on using a program logic model and outcomes framework. Students will select a program that is already being implemented or could be developed and implemented at their own practice settings or other settings. They will collaborate with colleagues to identify key program outcomes and person, environment and program factors that might have an influence on these outcomes. Students will design a program outcomes study that feasibly could be implemented at the selected setting. They will review and critically appraise literature pertaining to this study and the assessments / methods used to measure the key variables of concern. Statistical software will be used to develop a database to manage, analyze and monitor data on key variables. Each step in the process along with key outcome measurement concepts will be addressed in class, readings, and assignments. Each step will build upon previous steps. The final step will be the completed program outcomes study plan and presentation. Students are encouraged to present their final work to stakeholders at the selected practice setting.

### **COURSE OBJECTIVES:**

By the end of the course, students will be expected to:

- 1) Describe the varied purposes of outcomes measurement, management and monitoring in occupational therapy and related professions.
- 2) Describe and be able to use logic models and outcome frameworks to design a program outcome study.
- 3) Describe other models / frameworks to guide outcomes measurement design.
- 4). Identify at least two key program outcome aims or questions (i.e., to address a program's prioritized outcomes).
- 5) Identify key program outcomes and factors (person, environment, program) that could influence outcomes.

- 6) Critically examine effective methods and available instruments to collect data on key variables.
- 7) Describe key measurement constructs (reliability, validity, responsiveness, utility) and methods used to examine these constructs.
- 8) Critically review and synthesize literature pertaining to program outcome studies..
- 9) Develop an outcome monitoring & management system / database using Microsoft Excel.
- 10) Design a program outcomes study that feasibly could be implemented at a selected setting in collaboration with staff at the setting.
- 11) Present program outcomes study plan/proposal in class and to colleagues at the selected practice setting.
- 12) Assist other students and colleagues with the design of their program outcome studies.

#### **REQUIRED TEXT:**

United Way of America (1996). *Measuring program outcomes: A practical approach*. Alexandria, VA: Author.

#### **RECOMMENDED TEXTS:**

American Psychological Association. (2010) *Publication Manual of the American Psychological Association, Sixth Edition*. Washington DC: Author.

AND/OR

- **APA Style Tutorial** <http://www.apastyle.org/learn/tutorials/basics-tutorial.aspx>
- **APA summary website:** <http://www.docstyles.com/apacrib.htm>

#### **Sources which informed course content:**

- Donobedian, A. (1988). Quality assessment and assurance: Unity of purpose, diversity of means. *Inquiry*, 25, 173-192.
- Donobedian, A. (1966). Evaluating the quality of medical care. *Milbank Memorial Fund Quarterly*, 44, S166 – 206.
- Forer, S. (1996). *Outcome management and program evaluation made easy: A toolkit for occupational therapy practitioners*. Bethesda, MD: The American Occupational Therapy Association, Inc.
- Horn, S. D. (1997). *Clinical practice improvement methodology: Implementation and evaluation*. New York: Faulkner & Gray, Inc.
- Kane, R. L. (1997). *Understanding health care outcomes research*. Gaithersburg, MD: Aspen Publishers, Inc.

- Law, M., Baum, C., & Dunn, W. (2009). *Measuring occupational performance: Supporting best practice in occupational therapy*, 2<sup>nd</sup> Edition. Thorofare, NJ: Slack Inc.
- McNamara, C., Basic Guide to Program Evaluation. [online guide]  
[http://www.managementhelp.org/evaluatn/fnl\\_eval.htm](http://www.managementhelp.org/evaluatn/fnl_eval.htm)
- Portney, L. G., & Watkins, M. P. (2009). *Foundations of clinical research: Applications to practice*. 3rd Edition. Upper Saddle River, NJ: Prentice Hall Health.
- Watson, D. E. (2000). Evaluating costs and outcomes: Demonstrating the value of rehabilitation services. Bethesda, MD: The American Occupational Therapy Association.
- Wilkerson, D. & Johnston, M. Clinical program monitoring systems: Current capabilities and future directions. In M.J. Furer (ed.) *Assessing medical rehabilitation practices: The promise of outcomes research*, Baltimore: Paul Brookes Publishing Co., pp. 275-305.

## **COURSE OUTLINE**

**Sept. 4**            Introductions  
                          Outcomes measurement, monitoring and management: Key concepts  
                          Models for doing program outcome studies

### Required reading for this and next week:

United Way text, Glossary, Introduction & Chapters (Steps) 1 & 2

### Recommended:

Rogers, J.C., & Holm, M. B. (1994). Accepting the challenge of outcomes research: Examining the effectiveness of occupational therapy practice. *American Journal of Occupational Therapy*, 48, 871-876.

Tarlov, A.R., Ware, J. E., Greenfield, S., Nelson, E.C., Perrin, E., & Zubkoff, M. (1989). The Medical Outcomes Study: An application of methods for monitoring the results of medical care. *Journal of the American Medical Association*, 262, 925-930.

**Sept. 11**            **Guest lecturers: Mary Barnes, OTR/L; Svea Van Langerhoven, MS, OTR/L**

                         Examples of program outcomes studies from initial planning to current progress.  
                          Class discussion and brainstorming of ideas related to their own programs.

**\*Assignment:** Begin initial contact with colleague/s at setting where you will likely design program outcomes study (i.e., to gather information about the setting's mission, programs, activities, resources and needs). All information about the setting and program should be obtained by November 20th to guide program outcomes study.

### Required reading for next week:

United Way text: Chapters 3 & 4

Recommended: Review / skim examples of different program outcome studies (posted on TRUNK)

Bedell, G., & Dumas, H. (2004). Social participation of children and youth with acquired brain injuries discharged from inpatient rehabilitation: A follow-up study. *Brain Injury, 18*, 65-82.

Bedell, G. (2008). Functional outcomes of school-age children with acquired brain injuries at discharge from inpatient rehabilitation. *Brain Injury, 22*, 313-324.

Bedell, G. (2008). Balancing health, work, and daily life: Design and evaluation of a pilot intervention for persons with HIV/AIDS. *Work: A Journal of Prevention, Assessment and Rehabilitation, 31*, 131-144.

King, G. A., McDougall, J., Tucker, M. A., et al. (1999). An evaluation of functional, school-based therapy services for children with special needs. *Physical and Occupational therapy in Pediatrics, 19*, 5-29.

Muterspaw, H. (2005). Developing an outcomes management system (in an inpatient rehabilitation facility). *Administration & Management Special Interest Quarterly, 21 (3)*, 1-4 [American Occupational Therapy Association].

Stewart, D., Law, M., Russell, & Hanna, S. (2004). Evaluating children's rehabilitation services: An application of a programme logic model. *Child: Care, Health & Development, 30*, 453-462.

Trombly, C. A., Radomski, M. V., & Davis, E. S. (1998). Achievement of self-identified goals by adults with traumatic brain injury: Phase I. *American Journal of Occupational Therapy, 52*, 810-818. [posted on blackboard]

**NOTE:** Bring in logic model worksheets (Worksheet 2, p.44) & ideas to class next week – we'll begin work on the first draft of your logic model in class & share this work to obtain feedback.

**Sept. 18**      Designing a program outcomes study: Discuss logic models & introduce outcome frameworks (outcomes, indicators, data sources & methods influencing factors)

**Assignment:** Post on TRUNK (or email) the first draft of logic model (Worksheet 2, p.44) by **Noon, Friday, Sept. 21. Review and provide student with feedback during the next class.**

Required reading for next week:

Review Chapter 3 & 4

**Sept. 25** Outcome Measurement Framework: Outcomes, indicators, data sources and methods; Influencing factors

Discuss students' program outcome studies; discuss comments from students & instructor

Introduction to critical examination of outcome measurement tools / methods (if time permits)

**Assignment:** Post on TRUNK (or email) an initial draft of outcome framework (Worksheet 4, p. 60, program outcomes, indicators, data sources/methods; AND Worksheet 5, p. 75, Influencing factors) by **Noon, Friday, Sept. 28. We will review and provide you with feedback during the next class.**

Required Readings: Review the following

Measurement Critique Assignment Guidelines

Andresen, E. M. (2000). Criteria for assessing the tools of disability outcomes research. *Archives of Physical Medicine & Rehabilitation, 81 (suppl 2)*, S15-S20.

Law, M. (2004) *Outcome measures rating form guidelines*. Hamilton, Canada: CanChild Centre for Childhood Disability Research, McMaster University. NOTE: We will NOT use the rating form for this assignment, however, the guidelines are helpful for understanding measurement concepts and appraisal. Accessed at:

<http://www.fhs.mcmaster.ca/canchild/> Click "measures and multimedia" or go directly to:

<http://bluewirecs.tzo.com/canchild/patches/measguid.pdf> (Guidelines)

Recommended: Review / skim articles to identify how others critically appraise measures

Bedell, G. & Coster, W. (2008). Measuring participation of school-age children with traumatic brain injuries: Considerations and approaches. *Journal of Head Trauma Rehabilitation, 4*, 220-229.

Cohen, M. E., & Marino, R. (2000). The tools of disability outcomes research functional status measures. *Archives of Physical Medicine & Rehabilitation, 81 (suppl 2)*, S21-S29.

Dijkers, M., Whiteneck, G., & El-Jaroudi, R. (2000). Measures of social outcomes in disability research. *Archives of Physical Medicine & Rehabilitation, 81 (suppl 2)*, S63-S80.

Lollar, D.J., Simeonsson, R.J., & Nanda, U. (2000). Measures of outcomes for children and youth. *Archives of Physical Medicine & Rehabilitation, 81 (suppl 2)*, S46-S52.

- Oct. 2**            Critical examination of outcome measurement tools / methods  
Purposes and types of outcome measures  
Psychometric properties and analyses (reliability, validity and responsiveness)  
Review critique assignment  
Discuss students' program outcome studies (outcome frameworks & feedback)

Required Reading for next week:

Bedell, G. (2004). Developing a follow-up survey focused on participation of children and youth with acquired brain injuries after inpatient rehabilitation. *NeuroRehabilitation, 19*, 191-205

Bedell, G. Further validation of the Child and Adolescent Scale of Participation (CASP).(2009)  
*Developmental Neurorehabilitation, 12*, 342-351.

Bedell, G. (2011). Administration & Scoring Guidelines for the Child & Adolescent Scale of Participation (CASP). Downloadable at: <http://sites.tufts.edu/garybedell/measurement-tools/>

**Assignment:**

Use critique assignment template to record information about the CASP. We will critically appraise the CASP in the next class.

Decide on measurement tool that you will critique and discuss in next class.

**OCTOBER 9 [NO CLASS-SUBSTITUTE MONDAY CLASS ON TUESDAY]**

- Oct. 16**            Critical examination of outcome measurement tools / methods (continued as needed)  
Do critique of CASP in class  
Discuss selected measures for critique assignment  
Update on program outcome studies

Required for next two weeks:

Review: United Way, Chapter 4, 5, Appendix – Issues in developing data collection instruments

Barkman, S. (2002). *Field guide to designing quantitative instruments to measure program impact*. West Lafayette, IN: Purdue Extension.

Recommended:

Ottenbacher, K. J. & Cusick, A. (1990). Goal attainment scaling as a method of clinical service evaluation. *American Journal of Occupational Therapy, 44*, 519-525.

**Oct. 23** Designing outcome study data collection instruments / questions to obtain information on program outcomes and influential factors.

Questions about measurement and critique paper

**NOTE: MEASURE CRITIQUE PAPER DUE NEXT WEEK** (be prepared to discuss selected tool & critique it informally in class next week).

Be prepared to discuss and obtain feedback on questions and/or measures you will need to develop for your program outcomes study (bring examples guided from information gathered from readings).

**Oct. 30** Discuss critiques of outcome measurement tools (informal presentations of critiques)  
Questions about measurement issues as needed  
Designing outcome study data collection instruments / questions (continued)

**DUE TODAY:** Critique of outcomes measurement tool (graded paper)

**Assignment:** Continue to design questions and measures to obtain information on program outcomes and influential factors. Be prepared to discuss and obtain feedback in class (bring examples). Also, be prepared to discuss the type of data that will be included in your outcomes monitoring system / Excel database.

Required reading for next two weeks:

United Way, Chapter 5, 6, 7 & 8

**Nov. 6** Designing outcome study data collection instruments / questions (continued as needed)  
Developing the outcomes monitoring system / database (demonstration and practice)

**NOTE: Might need to bring laptops to this class**

**Assignment:** Continue working on outcome monitoring system using Excel and bring to next class along with your questions.

**[Bring laptops to next class]**

**Nov. 13** **Guest lecturer: Marc Patacchiola, Senior IT Training Specialist, Tufts Information Technology Services**

Developing the outcomes monitoring system / database (demonstration & practice);  
Using Microsoft Excel  
Analyzing, interpreting, using, reporting / present data  
Demonstration and practice using data sets (if time permits)

**Bring laptops**

**Assignment** Continue to develop outcome system on your own & with your peers using Excel.

**Nov. 20** **I might not be able to attend this class. We will discuss options for using this time productively, if needed.**

**NOTE: All information about your proposed setting and program to guide program outcome study should have been obtained at this point.**

**Assignment: Work on your program outcome studies. On TRUNK (or via email) post work-in-progress for feedback by Noon, Monday, 11/26. We will discuss in the next class.**

**Nov. 27** Analyzing, interpreting, using, reporting / presenting data (continued as needed)  
Discuss /obtain feedback on students' program outcome studies; organize, practice & get feedback for presentations.

**Bring laptop to class as needed**

**NOTE: Make individual appointments with me to discuss program outcome studies and outcome monitoring systems, as needed.**

**Dec. 4** Last class – POWERPOINT ORAL PRESENTATIONS OF PROGRAM OUTCOME STUDY PLANS TODAY (other students and faculty invited)

**Course evaluations**

**Dec. 11** **DUE:** All program outcome study components completed: Refined powerpoint presentation slides; logic model, outcomes framework, influencing factors framework, and in-progress examples of data collection tools (post on TRUNK by 12:00 Midnight). Post final outcome monitoring system / database on TRUNK at this time as well. (Final graded assignment).



## ASSIGNMENTS AND GRADING:

- Participation (*in & out of class activities including drafts and feedback to others*):  $\sqrt{+}$ ,  $\sqrt{-}$  (useful for borderline grades)
- Critique of a measurement tool: **20%** [*Due Oct. 30<sup>th</sup>*]
- Final program outcomes study –in-class oral presentation: **20%** [*Due Dec. 4<sup>th</sup>*]
- Final program outcomes study (All program outcome study components completed): **60%** [*Due Dec. 11<sup>th</sup> by midnight*]

Hand in each assignment on stated dates – if the assignment is late, you will lose a ½ grade for each day it is late (e.g., If late one day, the grade is dropped from A to A-; if two days, the grade is dropped from A to B+, and so on).

**Attendance:** You are required to attend all classes unless a valid excuse is provided to instructor within a week of, but preferably before, the missed class. Students who miss more than two classes will need to make an appointment with instructor to discuss rationale, consequences and appropriate solutions since this will affect your grade.

### **Overall grading criteria for written and oral assignments:**

**A** = Overall superior performance; evidence of significant extra attention beyond basic requirements of the assignment; particularly thorough and precise reasoning; very clear, concise and professional quality of writing. All questions/sections addressed; description and critical analysis are provided.

**B** = Solid performance which meets all the requirements of the assignment, but does not show the creativity or depth warranting an ‘A’ grade.

**C** = Performance does not meet the specifications of the assignment in some critical way (questions / sections not addressed; lack of critical analysis or depth); writing is not clear or was not well-edited / proof-read.

**D** = Performance does not meet many of the specifications of the assignment. A ‘D’ grade is indicated when all of the problems associated with a ‘C’ grade are noted, but in greater number and/or to a greater extent.

**F** = Performance does not meet most to all of the specifications of the assignment. An ‘F’ grade is indicated when all the problems associated with a ‘D’ grade are noted, but in greater number and/or to a greater extent.