POTH 680- Knowledge Translation in Rehabilitation

Course Credits: 3 credits

Course Coordinator: Anita Menon, PhD
Project Director, Edith Strauss Knowledge Translation (SPOT)

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Office hours: By appointment

Session Time/Room: 9:30am-12:30pm; Davis Basement-2

Session Dates: **Friday**; September 9 to December 11, 2016

Prerequisites: None

Lecturers: A. Menon, A. Thomas, N. Mayo, J. Boruff, A. Bussieres, K. Shikako-Thomas

CALENDAR COURSE DESCRIPTION

This course focuses on the theory/application of knowledge translation (KT) in rehabilitation science with the goal of promoting evidence-based practice and research utilization. Various client groups and clinical settings will be examined from the perspective of how research evidence can be implemented into daily practice using effective KT interventions.

ONLINE COURSE EVALUATIONS

Students are strongly encouraged to complete the online course evaluations at the end of the term. Data obtained from these evaluations are used to provide instructors with feedback as well as for identifying situations where a course or instructor needs assistance. The feedback and suggestions contained in the responses are highly valued and helpful in ensuring that the instructor makes appropriate changes to courses as needed in order to facilitate student learning.

LEARNING OUTCOMES

On completion of this course, the student will be able to:

1. define and distinguish between terms commonly used in the knowledge translation (KT) literature;

2. identify gaps in best practices versus actual practices published in the research literature for a particular client group or clinical setting;

3. apply methods for critically appraising and synthesizing the research evidence (e.g. research questions in PICO format, use of practice guidelines and

systematic reviews, levels of evidence versus the role of clinical reasoning and experience, etc.), as well as identify how this evidence can be "re-packaged" for a particular client group or clinical setting;

4. identify barriers and facilitators related to the uptake of best practices based on KT theoretical models (e.g. Theoretical Domains Framework), as well as identify how they may act for a particular client group or clinical setting;

5. define and apply various KT theoretical process models (e.g. Knowledge to Action Model) to specific clinical situations in order to propose KT interventions that close the knowledge gap and promote evidence-based practice;

6. list clinician and organizational characteristics that support the integration of evidence into practice as per KT theoretical models (e.g. Consolidated Framework for Implementation Research) and identify how they may act for a particular clinical program;

7. apply the current evidence regarding effective and non-effective KT interventions for developing an KT intervention plan for a real or hypothetical clinical setting;

COURSE CONTENT
The focus of the course will be on the theory and application of KT in rehabilitation science with the goal of promoting evidence-based practice and research utilization. Various client groups and clinical settings will be examined from the perspective of how research evidence can be implemented into daily practice through the use of effective KT interventions. Content of the course will be grounded through the application of various KT/implementation theories.

Session 1 – September 9, 2016 – Anita Menon: KT process models: KT and its role in rehabilitation
*   What is KT? Its importance and application in research and clinical practice
*   KT theoretical approaches: Nilsen article as the basis for this course
*   KT process models: Knowledge to Action Model
*   Generating and packaging knowledge: types of knowledge tools
*   Evaluating the quality of the evidence (e.g. PEDro, Newcastle-Ottawa Scale)
*   Developing a KT research question (PICO)

Required readings
1. Graham ID, Logan J, Harrison MB, Straus SE, Tetroe J, Caswell W, Robinson N. Lost in Knowledge Translation: Time for a Map? *Journal of Continuing Education in the Health Professionals*, 2006; 26(1): 13-24.
2. Straus S, Tetroe J, Graham ID. Defining knowledge translation. *Canadian Medical Association Journal*, 2009; Aug 4; 181(3-4):165-8.
3. Nilsen P. Making sense of implementation theories, models and frameworks. Implementation Science, 2015; 10:53. DOI: 10.1186/s13012-015-0242-0

DEADLINE: POST ASSIGNMENT #1 and KT OUTLINE on MyCourses

Session 2 – September 16, 2016 – Aliki Thomas: Sources of knowledge and evidence

- What constitutes a valid source of evidence? What is knowledge? (best practice guidelines, systematic reviews, etc.)
- Evidence based decision-making: what is the role of clinical experience and patient preferences? What are the resources available?

Required readings
1. Thomas A, Law M. Research utilization and evidence-based practice in occupational therapy: a scoping study. *American Journal of Occupational Therapy*. 2013; 67, e55–e65.
2. Rycroft-Malone J, Seers K, Titchen A. Harvey G, Kitson A, McCormack B. What counts as evidence in evidence-based practice? *Journal of Advanced Nursing. 2004*; 47(1), 81–90.

Session 3 – September 23, 2016 – Anita Menon: Practice gaps and adapting knowledge to local context

- Identifying the knowledge or practice gap
- Example of practice gap: Best versus actual practices of Canadian stroke rehabilitation therapists
- Measuring knowledge/practice gaps at multiple levels: patient, therapist, organization; methods for assessing knowledge/practice gaps: research setting versus clinical practice
- Adapting knowledge to local context
- Methods for identifying learning needs: needs assessment through focus groups, questionnaires, etc.
- Tailoring knowledge based on learning needs of multiple stakeholders (i.e. policy makers, department heads, rehabilitation therapists, other health professionals, patients, families etc.)

Required readings
1. Chapter 3.1 and 3.2: Straus S, Tetroe J, Graham ID. *Knowledge translation in health care: moving from evidence to practice.* Wiley-Blackwell, BMJI Books, 2009

DEADLINE: ASSIGNMENT #1 DUE

Session 4 – September 30, 2016 – Anita Menon: Clinician and organizational barriers and facilitators to KT
- Clinician and organizational facilitators/barriers to KT
- Practice Style Questionnaire: practice style traits
- EPIC Scale: self-efficacy and confidence in implementing EBP
- Barriers to Research Utilization Scale (Funk et al.)
- Evidence-based Practice Attitudes Scale (Aaron et al.)

Required readings
1. Chapter 3.3: Straus S, Tetroe J, Graham ID. Knowledge translation in health care: moving from evidence to practice. Wiley-Blackwell, BMJI Books, 2009
2. Green LA, Gorenflo DW, Wyszewianski L. Validating an instrument for selecting interventions to change physician practice patterns: A Michigan Consortium for Family Practice Research study. *Journal of Family Practice*, 2002; 51(11): 938-942.
3. Salbach NM, Jaglal S, Korner-Bitensky N, Rappolt S, Davis D. Practitioner and organizational barriers to evidence-based practice of physiotherapists for persons with stroke. *Physical Therapy,* 2007: 87:1284-1303.
4. Rochette A, Korner-Bitensky N, Thomas A. Changing clinicians' habits: is this the hidden challenge to increasing best practices? *Disability and Rehabilitation* 2009: May 21:1-5.
5. Chapter 3.4 and 4.4: Straus S, Tetroe J, Graham ID. Knowledge translation in health care: moving from evidence to practice. Wiley-Blackwell, BMJI Books, 2009

Session 5 – October 7, 2016 – Andre Bussieres: Determinant Frameworks: Individual barriers and facilitators to KT (clinicians, patients, etc.)
- Theoretical Domains Framework

Required readings
TBD

Session 6– October 14, 2016 –Keiko Shikako-Thomas: Determinant Frameworks: organizational barriers and facilitators to KT
- Consolidated Framework for Implementation Research

Required readings
TBD

DEADLINE: KT OUTLINE DUE and POST ASSIGNMENT #2 on MyCourses

Session 7 – October 21, 2016 – Jill Boruff: Systematic literature searches
- *COME TO CLASS WITH A RESEARCH QUESTION (for your KT proposal)*
- Understanding the implications of KT terminology on literature searching

- Conducting a comprehensive, systematic literature search to <u>answer your PICO question</u> by reviewing rehabilitation research evidence and identifying practice gaps.

<u>Required readings</u>
1. Chapter 2.4: Straus S, Tetroe J, Graham ID. *Knowledge translation in health care: moving from evidence to practice*. Wiley-Blackwell, BMJI Books, 2009.

<u>Session 8 – October 28, 2016 – Nancy Mayo</u>: KT study designs
- Where does KT fit in the research cycle and implementation cycle?
- Study designs for KT research and implementation science

<u>Required readings</u>
1. Bhattacharyya OK, Estey EA, Zwarenstein M. Methodologies to evaluate the effectiveness of knowledge translation interventions: A primer for researchers and health care managers. *Journal of Clinical Epidemiology*. 2011; 64 (1): 32-40.
2. Brown CA, Lilford RJ. The stepped wedge trial design: a systematic review. *BMC Medical Research Methodology*. 2006, 6:54.
3. Demers L, Poissant L. Connecting with clinicians: opportunities to strengthen rehabilitation research. *Disability and Rehabilitation*, 2009; 31(2):152-9.

<u>Session 9 – November 4, 2016 – Aliki Thomas</u>: Classic theories: Understanding how we learn and apply new knowledge
- Using learning theories to help design KT interventions
- Theories of planned behaviour
- Cognitive and metacognitive skills in research utilization

<u>Required readings</u>
1. Chapter 4.1, 4.2 and 4.3: Straus S, Tetroe J, Graham ID. *Knowledge translation in health care: moving from evidence to practice*. Wiley-Blackwell, BMJI Books, 2009
2. Davies P, Walker AE, Grimshaw JM. A systematic review of the use of theory in the design of guideline dissemination and implementation strategies and interpretation of the results of rigorous evaluations. *Implementation Science*. 2010; S14.
3. Brehaut JC, Eva KW. Building theories of knowledge translation interventions: Use the entire menu of constructs. *Implementation Science*. 2012, 7:114
4. Michie S et al.: The behaviour change wheel: A new method for characterising and designing behaviour change interventions. Implementation Science 2011 6:42.

DEADLINE: ASSIGNMENT #2 DUE and POST KT PROPOSAL GUIDELINES on MyCourses

Session 10 – November 11, 2016 – Anita Menon: Implementation: Designing effective KT interventions
- Selecting and defining a KT intervention
- Theoretical frameworks to understand/explain mechanisms of implementation
- Evidence on effective and non-effective KT interventions for medical professionals and rehabilitation therapists
- Use of a knowledge broker at your clinical setting

Required readings
1. Chapter 3.5: Straus S, Tetroe J, Graham ID. *Knowledge translation in health care: moving from evidence to practice*. Wiley-Blackwell, BMJI Books, 2009
2. Menon A, Korner-Bitensky N, McKibbon A, Straus S. Strategies for Rehabilitation Professionals to Move Evidence-based Knowledge into Practice: Systematic Review. *Journal of Rehabilitation Medicine*. Nov 2009; 41(13): 1024-1032.

Session 11 – November 18, 2016 – TBD: Outcome evaluation for KT interventions
- Preceed-Proceed Model
- RE-AIM
- Monitoring knowledge use and evaluating outcomes for KT interventions
- Sustainability of a KT intervention- how can we make evidence-based practice stick? What factors promote sustainability
- PERFECT: a tool to measure change in practice behaviours over time (i.e. sustainability of a KT intervention)
- A knowledge translation story – from A to Z: Unilateral spatial neglect post-stroke

Required readings
1. Chapter 3.6 and 3.7: Straus S, Tetroe J, Graham ID. *Knowledge translation in health care: moving from evidence to practice*. Wiley-Blackwell, BMJI Books, 2009
2. Menon A, Cafaro T, Loncaric D, Moore J, Vivona A, Wynands E, Korner-Bitensky N. Creation and validation of the PERFECT: a critical incident tool for evaluating change in the practices of health professionals. *Journal of Evaluation in Clinical Practice*, 2010 Dec; 16(6) 1170-1175.

Session 12 – November 25, 2016 – Keiko Shikako-Thomas: Role of policy in KT
- Considering multiple stakeholders when deciding how to monitor knowledge use and evaluate outcomes
- Evaluating the impact of KT interventions at multiple levels: patient outcomes/satisfaction, therapist, organization, policy.
- Process of making changes at the policy level
- Mercury Course Evaluations (in class)

Required readings
TBD

Session 13 – December 2, 2016– Anita Menon:

CLASS PRESENTATIONS and FINAL KT PROPOSALS DUE

INSTRUCTIONAL METHODS
The course will use brief lectures, readings, in-class assignments, interactive group discussions, case studies and web-based learning, in order to help students master the theoretical concepts and practical application of KT principles. The instructors will not be explicitly lecturing on the knowledge or practice gaps that are specific to each student's area of interest. Students are expected to find this literature in a self-directed manner in order to complement their understanding of the practice gaps, if deemed necessary. The main portion of each class will be devoted to the theory and application of knowledge translation in rehabilitation science with the goal of promoting evidence-based practice. Presentation slides will be made available before or following the end of each session.

EVALUATION
- Outline of KT grant proposal   15%
- KT grant proposal (8 pages): written (40%) and oral (15%)   55%
- Assignments (2 X 15% per assignments)   30%
    - Assignment 1: KTA model
    - Assignment 2: Barriers TDF

The main assignment is the KT grant proposal. All formative/summative assignments throughout the term will serve to inform the design and completion of this project. **Assignments/proposals must be submitted electronically: anita.menon@mcgill.ca**

COURSE MATERIALS
Each session will have a designated list of online readings and class notes, all of which will be posted on myCourses. It is the responsibility of the student to read all assigned course materials prior to the lectures.

REQUIRED BOOK (available as e-book from library)
Straus S, Tetroe J, Graham ID. *Knowledge translation in health care: moving from evidence to practice*. Wiley-Blackwell, BMJI Books, 2009.

SCHOOL POLICIES

> **In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change**

Attendance
Students are expected to attend classes on time. It is the responsibility of each student to attend classes prepared and be actively involved. Although attendance will not be

taken, the materials covered in class will be subject to evaluation. It is common professional courtesy to attend classes scheduled in health care institutions.

Right to write in (English or in) French
"Every student has a right to write essays, examinations and theses in English or in French except in courses where knowledge of a language is one of the objects of the course."

Consequences of not completing assignments as requested
Assignments not competed on time will be penalized 5% of the total mark per day, including weekends. In the event that an assignment cannot be submitted on its due date, students are encouraged to inform the instructor as soon as possible with proper justification.

Disability
If you have a disability please contact the instructor to arrange a time to discuss your situation. It would be helpful if you contact the Office for Students with Disabilities at 398-6009 before you do this.

Professional Conduct
Professionalism and accountability are expected throughout the course of the semester. This includes the on-going respectful nature of teacher-student as well as student-student interactions.

Statement regarding mobile computing and communications (MC2) devices
No audio or video recording of any kind is allowed in class without the explicit permission of the instructor. MC2 devices (cellular phones, blackberries, IPods, etc.) are not to be used for voice communication without the explicit permission of the instructor. Students must ask for permission from the instructor if any one of these devices needs to be on for the duration of class. Lap tops are permitted in class under the following condition(s): as negotiated by the class on the first day of term and only for note taking and consulting online resources. Non-compliance with these guidelines will result in the student being asked to leave class. In the event of a second offence, the student will be asked to meet with the program director.

Dress Code:
Professionalism with respect to dressing is encouraged throughout the course of the semester especially while on site visits.