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Autism Classification System of Functioning: Social Communication - A preliminary analysis to expand for school-aged children with ASD
Authors: Chelsea Breckels, Natalie Istanboulian, Courtney McKeracher, Katarina Schwabe
Supervisor: Dr. Briano Di Rezze

Abstract

**Introduction:** The Autism Classification System of Functioning (ACSF:SC) is a five-level system that was developed for preschool-aged children (3 to <6 years) with autism spectrum disorder (ASD) to provide a consistent way to classify levels of social communication ability. **Purpose:** To use qualitative methods to explore the applicability of the ACSF:SC tool for school-aged children (6-12 years) with ASD and examine parents of school-aged children’s understanding of the ACSF:SC. **Methods:** A sample of six parents of school-aged children with ASD were recruited to participate in the study. Cognitive interviewing principles were used to develop interview guides to gather data from the participants on their experiences using the ACSF:SC. Data were analyzed by four coders using qualitative content analysis. **Results:** Five categories structured the data that came out of the interviews: applicability, clarity, context, misalignment, and recommendations. **Conclusion:** Overall, these preliminary results indicated that the ACSF:SC was applicable to school-aged children with ASD and clearly understood by parents, however, several recommendations were provided to be considered before proceeding with its use.

**Introduction**

Autism Spectrum Disorder (ASD) is a neurodevelopmental disability affecting 1 in 66 Canadian children. Individuals with ASD may experience challenges with social communication and repetitive and restrictive patterns of behaviours. The Autism Classification System of Functioning: Social Communication (ACSF:SC) is a tool that helps to identify levels of social communication skills for children with ASD. The five-level system, developed with parents and professionals, provides a simplified way to discuss a child’s social communication abilities. Two ratings are used to determine a child’s typical performance and best capacity. The classification system uses a strengths-based approach to focus on what the child is able to do. Originally developed for preschool-aged children (3 to <6 years), the purpose of the current study was to explore whether the ACSF:SC can be used with school-aged children (6-12 years) with ASD.

**Research Questions**

1. How applicable is the ACSF:SC for school-aged children with ASD?  
2. How easy or difficult is the ACSF:SC to understand for parents of school-aged children with ASD?

**Methods**

Cognitive interviews were conducted to gain an in-depth understanding of parents’ experiences using the ACSF:SC, and to explore their understanding of key terms used in the tool. To guide this process, and to increase interviewer consistency, an interview guide was developed based on the principles of cognitive interviewing. The interview guide included specific questions about the parent’s ability to select a level of social communication skills using the ACSF:SC, and a list of probes to gain more details regarding the parent’s understanding and experience with the tool.

Recruitment of families with a school-aged child with a confirmed diagnosis of ASD was conducted in clinic by study coordinator (HV) in collaboration with clinicians at the Ron Joyce Centre. Interviews were conducted independently by four Student OTs over the telephone with a parent of the child. The interview guide was modified through an iterative process as interviews occurred with probes added to explore how context affects a child’s social communication rating. Six parents of school-aged children with a confirmed diagnosis of ASD were interviewed, with one parent providing responses for two children. Interviews were recorded and transcribed. Coding and analysis occurred simultaneously. Each Student OT independently read two transcripts and derived a list of codes in dyads. A final codebook was created by merging codebooks between dyads, with codes refined and finalized through consensus discussions. Each transcript was then coded by two researchers. Manifest content analysis was used, with the authors finalizing categories and coded data through group discussion and consensus.

**Results**

The following five categories were used to code the data: **Applicability:** All parents were able to identify their child in at least one of the ACSF:SC levels. Parents frequently selected a level by considering and identifying social communication skills of the child that were aligned with the description of the level. For example, one parent discussed examples of their child communicating about preferred interests (level 2). Some parents also selected a level by considering the social communication skills that the child was unable to demonstrate. For example, one parent looked at advanced levels and identified an area of
difficulty for their child (e.g. sustain communication), prompting them to not select this level (e.g. level 3).

**Clarity:** Parents defined the levels of the tool using the words and phrases in the level descriptions. Most parents identified that the wording and terminology used in the tool was clear. Despite this stated understanding of terms used in the tool, some parents misinterpreted concepts or had difficulty defining key terms in their own words. For example, one parent was unable to define the term "sustaining communication."

**Context:** The best capacity and typical performance ratings that parents selected varied based on the context. Specifically, parents considered different environments (school vs. home) and/or communication partners (familiar vs. unfamiliar) to differentiate their child’s typical performance and best capacity levels.

**Misalignment:** Some parents provided examples of their child’s social communication abilities that were misaligned with the child’s selected level. One parent had a difficult time distinguishing between levels 2 and 3, and thus her examples included both. Reasons for these misalignments were not explicitly explored.

**Recommendations:** Parents provided specific recommendations that they believed would improve the applicability and/or clarity of the tool, including removing the word “playing” from the level 5 description, changing the age in the user guide, and providing more examples in the tool.

### Discussion

Preliminary implications for using the ACSF:SC tool with school-aged children are discussed:

**Applicability:** The five levels of social communication developed in the original ACSF:SC tool seem to demonstrate applicability to school-aged children with ASD, with minor edits as discussed in the recommendations category.

**Clarity:** The description of level 3 should be reviewed. This is the only level that includes the terms “verbally or non-verbally,” which may be misinterpreted by some parents. At this time, parents had no further suggestions for changes to the terminology in the tool.

**Context:** At this time, no further description of the physical and social environmental factors that may influence a child’s social communication skills is needed within the tool. Parents considered contextual factors, such as their child’s social communication skills at school compared to home, without prompting from interviewer.

**Misalignment:** To further understand why some parents provided examples of social communication skills that were misaligned with the selected level, member checking should be used to validate the information provided.

**Recommendations:** The use of the word “playing” in level 5 should be reviewed for school-aged children, as it may not be developmentally appropriate. If the tool is used with school-aged children, the age and example in the user guide should also be adjusted. The research team should consider clarifying in the tool that a child may function at a level even if they require prompting or direction to do so. Finally, some parents suggested that more examples and specifics should be provided. The authors are hesitant to support this recommendation, as this may influence level selection.

### Strengths and Limitations

Strengths of this study include the use of an interview guide to increase interview consistency, the rigorous procedure used to develop code books, and the diverse sample of children from various levels of the ACSF:SC. One of the limitations includes the small sample size, as having more than one parent’s perspective on a child from each of the levels may strengthen the results. Additionally, there was insufficient time to conduct follow-up interviews, which will be addressed, as the core research team will conduct follow-ups in the future.

### Conclusion

This study provides preliminary research to support that the ACSF:SC can be applicable for school-aged children with ASD, and that most parents have a clear understanding of the tool. Several revisions to the ACSF:SC are recommended based on the findings from this study. Future research will continue to gather parents’ perspectives of using the tool with school-aged children with ASD, with member checking recommended as needed. Future interviews with parents should explore usability of the tool, as the participants in this study had varying experiences using the tool.

### Acknowledgements

The authors would like to acknowledge and thank all researchers from CanChild involved in this study, including Dr. Brian DiRezze, Helena Viveiros, Dr. Stephen Gentles, Dr. Oksana Hlyva, Dr. Peter Rosenbaum, and Jessica Blackwood for their contributions and support. Funding to support research work has been provided by the New Investigator Award through Hamilton Health Sciences (HHS), Hamilton Academic Health Sciences Organization, and the HHS Research Early Career Awards for Dr. Di Rezze.

### Seminal References

Self-care animated video modelling for children with autism spectrum disorder (ASD)

Authors: Kimberly Brochu & Elissa Poturich, M.Sc., (OT) Candidates 2018
Supervisors: Lowana Lee, OTD, M.S., OT Reg. (Ont.) & Sandy Gaik, M.Ed., B.Sc., OT Reg. (Ont.)

ABSTRACT

Children with autism spectrum disorder (ASD) have varying abilities and symptoms which make completing multi-step activities challenging (e.g. self-care tasks). Occupational therapists often work with this population to develop independence with self-care tasks. Video-based intervention is an evidence-based approach to skills teaching using live-action human models. Research indicates children with ASD may show greater interest in images rather than people. Similar to VBI, animated video intervention (AVI) uses animated models to enable children with ASD to perform self-care tasks independently. Thus far, AVI has shown preliminary success in teaching self-care skills to children with ASD. Objectives of the following project are to: 1) identify, review, and appraise existing literature on AVI for teaching self-care skills to children with ASD; 2) create animated videos of self-care tasks; 3) complete a study proposal. The literature revealed a lack of high quality evidence for AVI, but showed promising results for its use to teach self-care skills to the target population. Based on reviewed literature, four animated videos were created. A pilot randomized control trial is proposed to advance research of AVI for self-care skills teaching to children with ASD.

INTRODUCTION

An estimated 1 in 66 children living in Canada have an autism diagnosis1. According to the DSM-V, ASD is an encompassing term, representing four previously distinct diagnoses: autistic disorder, Asperger’s disorder, childhood disintegrative disorder, and pervasive developmental disorder not otherwise specified2. ASD symptoms range from mild to severe and include challenges with social-interaction, communication, and repetitive behaviours, thus contributing to difficulty completing self-care tasks2.

Occupational therapists (OTs) complete comprehensive assessments and implement targeted interventions to increase independence with self-care tasks. Because children with ASD often perceive steps related to self-care tasks as unmotivating3, enjoyability of evidence-based interventions should be considered. There are a variety of intervention strategies used with this population, including the use of technology. Video-based intervention (VBI) is an evidence-based approach, grounded in observational learning theory and imitation principles3, used to teach children with ASD. Research indicates children may show greater interest in images rather than people, prompting the use of image-based interventions, such as animated video intervention (AVI)4. Despite preliminary success of AVI, evidence is limited and of low quality.

METHODS

Literature Review. A PICO (population, intervention, comparison, outcome) question was developed to guide the literature review: Is animated video intervention effective for teaching self-care skills to children with ASD (age 3-12)? No comparison was selected. Guided by the 6S Hierarchy of Evidence Based Resources a systematic search was conducted using database-specific indexing and available limits. Relevant databases searched between March 3-12, 2018 included: Clinical Key Guidelines, BMJ Best Practice, NICE, NHS Centre for Reviews and Dissemination, Cochrane Library, CINAHL, Epub Ahead of Print, MEDLINE, ERIC, and PsychInfo.

Inclusion Criteria. English language; children (3-12 years) with a diagnosis of ASD; and animated-video interventions.

Exclusion Criteria. Studies focused on social skills, perspective taking skills or behavioural intervention, imitation of play interventions, and video-prompting interventions.

Animated Video Development Process. (1) thorough task analysis of self-care tasks: brushing teeth, washing face, brushing hair, and putting on pants; (2) images edited in Adobe Illustrator and Photoshop; (3) animation design created in Adobe After Effects; (4) voice cues recorded based on task analysis in the McMaster Lyons New Media Centre audio recording booth; (5) animation, voice and text cues, and background music coordinated in Adobe Premiere; (6) and final products exported as .MP4 video files. Software support was provided by McMaster Lyons New Media Centre.

RESULTS OF LITERATURE REVIEW

Benefits to implementing AVI. Animated videos are easy to deliver and distribute and can be viewed in multiple environments (home, school, or community). Portability of videos allows skills and behaviours to be generalized to other settings, and provides the opportunity for AVI to be combined with existing ASD intervention strategies.

Barriers to implementing AVI. Children must possess a certain level of imitation, cognitive, and functional abilities for AVI to be an effective intervention strategy.
Caregiver compliance to intervention protocol is required. The creation of AVI is resource intensive (e.g., time, equipment, specialized skills) and there is a lack of current research investigating the use of commercially made videos.

**Appraisal of the literature.** The literature search yielded only single case studies (n=4) investigating the use of AVI as an intervention to teach self-care skills to children with ASD. Reviewed studies showed preliminary success for the use of AVI as an intervention for teaching self-care skills to children with ASD. However, the following themes emerged from critical appraisal of these studies: (1) poor methodologies; (2) small and unjustified sample sizes; (3) inconsistent intervention protocols; (4) inconsistent and non-standardized outcome measures; (5) and lack of control for co-interventions.

**STUDY PROPOSAL**
A pilot randomized control trial (RCT) is proposed to: (1) Investigate the feasibility of a fully powered RCT (2) Explore the efficacy of AVI as an intervention to teach self-care skills to children with ASD

**Inclusion Criteria.** Children age 3-12 with a diagnosis of ASD, who are receiving services from an OT at Ron Joyce Children’s Health Centre and having difficulty with one of the following self-care tasks: brushing teeth, brushing hair, washing face, or putting on pants.

**Exclusion Criteria.** Children with an intellectual or physical disability; previous participation in VBI; Level V on the Autism Classification System of Functioning: Social Communication (ACSF:SC); and/or a score of 0 on any of the Motor Imitation Scale (MIS) questions.

**Pilot RCT Protocol.** OTs will identify children from their caseload who match the above criteria for recruitment into the study. Written informed consent will be collected at each stage of the assessment process and prior to intervention. Assessment of eligibility will be based on cut-off scores for the ACSF: SC and MIS. Once 30 eligible participants have been identified, an OT will administer the following baseline measures with caregivers: The Adaptive Behavior Assessment System (ABAS), Goal Attainment Scale (GAS), and Canadian Occupational Performance Measure (COPM). For 21 consecutive days, caregivers will show children an animated video of the desired behaviour (a minimum of once per day) and complete a daily fidelity checklist. Caregivers will also document co-interventions and participate in weekly check-ins. An OT will re-administer the outcome measures (ABAS, GAS, and COPM) within one week following the intervention. Caregivers will be contacted by an OT at 3 and 6 months post-intervention to obtain qualitative data on performance maintenance and caregiver satisfaction.

**FUTURE DIRECTIONS**
Based on the critical appraisal of current literature, the following are needed to advance research of AVI: (1) rigorous & higher quality research (e.g. RCTs, large sample size); (2) identification of specific prerequisite skills of children with ASD who would most benefit from AVI; (3) development of clear and consistent intervention protocols; (4) and identification of co-interventions received during the study period.

**OT IMPLICATIONS**
Driven by theory and comprehensive assessments, OTs consider the person, environment, and occupation to identify client-centred interventions. Due to the diverse needs and abilities of children with ASD, individualized treatment plans are essential. OTs apply creative, evidence-based strategies to address the varying skill abilities of children with ASD. In an effort to provide effective self-care teaching strategies for this population, OTs may be interested in AVI. Although further research is needed, preliminary evidence suggests AVI may: (1) provide OTs with an alternative intervention strategy for self-care skills teaching that promotes family-centred care; (2) offer an opportunity to leverage technology and make self-care tasks more enjoyable; (3) and be an effective strategy for teaching self-care tasks to children with ASD.

**ACKNOWLEDGEMENTS**
We would like to acknowledge, Carlie Soares, Media Consultant with the McMaster Lyons New Media Centre, for her assistance in the creation of the animated videos. We would also like to thank Kait St. Pierre MSc, MSc (OT), OT Reg. (Ont.) for providing consultation throughout this project. Lastly, we would like to thank our supervisors, Lowana Lee and Sandy Gaik for their continued support and guidance.

**REFERENCES**
Abstract: A program evaluation on the Practice Resource Service (PRS), provided by the College of Occupational Therapists of Ontario’s (COTO), was commenced to answer the question “What knowledge translation (KT) and continuing professional development (CPD) interventions have been implemented on rehabilitation professionals to change attitude, knowledge, practice behaviours and client results?” Methods: Students conducted an environmental scan of 11 regulatory bodies and a scoping review on KT/CPD interventions implemented on rehabilitation professionals. Extracted data was categorized using 3 taxonomies. Results: Environmental scan found 15 educational methods that were categorized into the 4 KT interventions: educational materials (EM), professional support and mentoring (PSM), reminders (R), and educational outreach visits (EOV). Scoping review of 31 studies found that, as a multi-component intervention, EMs were more often reported as ineffective than effective, whereas PSM, R, and EOVs were more often reported as effective than ineffective. Conclusion: PRS should cultivate multi-component interventions and implement other interventions such as educational meetings and communities of practice.

Methodology

An environmental scan of other provincial, national, and international regulatory bodies was conducted to identify the common KT/CPD interventions used to disseminate information on ethical and legal standards of practice. Eleven regulatory bodies were included based on having a high number of registrants. Students visited each regulatory body’s website together and collected information using a standardized form. Additional information was collected by contacting each regulatory body through email. Interventions were categorized based on a modified EPOC Taxonomy.

A scoping review on KT/CPD interventions implemented on rehabilitation professionals was conducted based on Arksey and O’Malley’s scoping review framework. Two experts were contacted for key articles that were used to generate keywords for a systematic search. Five databases (OVID Medline, CINAHL, Cochrane EPOC, ERIC, and Pubmed) and one key journal (Implementation Science) were searched from their inception until May 2018. An additional hand search was done. Searches were limited to English articles. Inclusion and exclusion criteria were developed post hoc as familiarity with the literature increased. Articles were included if they implemented KT/CPD interventions on rehabilitation professionals. Articles were excluded if they: did not report on the intervention’s effect on changing reaction, learning, behaviour or client results; sample included less than 50% rehabilitation professionals; were grey literature; were conducted in non-English speaking countries; or were already included in another study (i.e. systematic review). Students independently extracted data from the studies using a standardized form. Study design, interventions, and outcomes were categorized using the Study Design Flowchart, modified EPOC Taxonomy, and Kirkpatrick Levels respectively. Disagreement was discussed until consensus was
reached. Systematic reviews and randomized control trials were appraised using their respective Critical Appraisal Skills Programme checklists. Case series were appraised using the 3-minute appraisal criteria. Data was synthesized into a narrative summary.

**Results**

**What interventions do other regulatory bodies use?** An environmental scan of 11 regulatory bodies identified 15 unique educational methods (e.g. PDF/docx files, e-newsletters, written text on the website, online practice support, and social media platforms. These 15 methods fit into 4 EPOC interventions: educational materials (EM), professional support and mentoring (PSM), reminders (R), and educational outreach visits (EOV). PRS’ current interventions match those used by the other regulatory bodies.

**Which KT/CPD interventions have been reported as effective in changing practice behaviour?** The scoping review included 31 studies (3 systematic reviews, 4 RCTs, 24 case series) that reported on the effectiveness of 11 EPOC interventions (i.e. EM, PSM, R, EOV, educational meetings [EMT], community of practice [COP], local opinion leaders, interprofessional education, local consensus process, audit and feedback, and tailored interventions). The quality of these studies ranged from moderate to good. For the studies that reported on EM (N=2), PSM (N=1), R (N=1), and EOV (N=1) as a single-component intervention, none were reported to improve practice behaviour. When assessed as a part of a multi-component intervention with 2 or more EPOC interventions, more studies reported EMs to be ineffective (N=7) rather than effective (N=5). This finding encompasses all varieties of EMs (e.g. printed or posted materials, videos, e-modules), which constitutes the majority of PRS’ current methods. EMs were only reported as effective when implemented in combination with at least 3 other EPOC interventions. For studies reporting on PSM, R, and EOV as a part of a multi-component intervention, more studies reported them as effective (PSM N=8; R N=4; EOV N=2) rather than ineffective (PSM N=2; R N=1; EOV N=0).

**Recommendations:** PRS is encouraged to implement strategies to ensure that registrants are not receiving information from EMs alone. PRS is encouraged to integrate interventions to develop a multi-component intervention effect. For example, when new EMs are created, PRS may send Rs to registrants saying they can arrange for EOVs and invite registrants to ask questions through PSM. PRS may consider implementing EMT and COP so registrants have more opportunities to receive information and improve their practice. These interventions have been reported as effective when implemented as a single-component intervention (EMT N=1; COP N=1) and multi-component intervention (EMT N=12; COP N=2). This study is limited by: 1). Excluding grey literature due to time constraints, which may contribute to publication bias; and 2). Only including English studies, which may have limited search results.

**Conclusions/Future Directions**

Students found 11 KT/CPD interventions that have been reported as effective in improving practice behaviours in rehabilitation professionals. PRS currently implements 4 of these interventions. In order to support ethical, safe, and effective OT practice, PRS should cultivate multi-component interventions and implement other interventions that were found in this scoping review. Moving forward, COTO may evaluate PRS by following through the steps of KTA’s action cycle. To complete the first step of problem identification, COTO must address the 2 other primary RQs on outcomes and context. Reviewing literature on existing outcome measures will help COTO identify the change that they wish to measure in their registrants. Then, reviewing literature and surveying registrants on their practice context will help COTO identify the facilitators and barriers that registrants face in understanding and applying PRS’ information into their practice. Answering these 2 primary RQs will provide COTO with the information necessary to move through the KTA action cycle, and fully evaluate PRS.

**Acknowledgements**

We would like to acknowledge Sandra Carter and Sonia Mistry’s support from the COTO; and thank Tara Packham and Sandra VanderKaay for their valuable time and input.

**References**

OBPI Outcomes - Evaluating Movement and Function in Children who Sustained OBPI that Required Surgical Intervention

Authors: Kayla Colling, MScOT Candidate 2018, Dana Stanbrook, MScOT Candidate 2018
Supervisors: Deb Gjertsen, OT Reg(Ont), Carol DeMatteo, OT Reg(Ont)

Abstract

Objective: The objective was to assess individuals who sustained obstetrical brachial plexus injury (OBPI) at birth and underwent surgery for primary nerve repair as infants to find out how they are doing in adolescence. Subjects: Participants were recruited from the OBPI outpatient clinic at McMaster Children’s Hospital in Hamilton, Ontario. Thirteen individuals between the ages of 9 and 17 participated in the assessment battery. Methods: The study was a cross-sectional design using prospective assessments and retrospective chart review to gather data on the participants. Main Measures: The assessments measured movement (the Modified Mallet), functional movement (Active Movement Scale; AMS), performance of functional tasks (Brachial Plexus Outcome Measure; BPOM), self-perception (Self-Perception Profiles for Children or Adolescents), quality of life (Kid Screen-27), occupation-based goals (Canadian Occupational Performance Measure) and pain (Modified Faces Pain Scale). Results: 80% reported pain. 67% identified functional leisure goals. 58% of BPOM scores reflected shoulder impairment. AMS scores correlated with psychological well-being (r=.845, 0.01). Conclusions: Pain is present but not an interfering factor. Functional goals are common, particularly in leisure domains. Shoulder function is most frequently impacted. Greater physical impairment correlated with low psychological well-being and self-worth.

Introduction

Obstetrical brachial plexus injury (OBPI) is a traction injury to the brachial plexus during birth and most commonly due to large birth weight and shoulder dystocia. The reported incidence ranges from 0.1-6.3 for every 1000 live births. A retrospective cohort review of ten Canadian OBPI centres documented an incidence of 1.24 per 1000 live births, consistent over an 8 year period. Approximately 30% require primary nerve reconstruction along with nerve transfers by 4-6 months of age, with some centres operating between 6-9 months for infants with delayed recovery patterns. Long-term sequelae have been described in children who do not demonstrate spontaneous recovery in the first 3 months of life. These sequelae include limb length discrepancies, asymmetries in movement and muscle development, shoulder and elbow contractures and pain. National and international committees are forming to develop consensus and evidence-based recommendations to guide both the care and research for children and youth with OBPI. In summary, at least one third of infants who have sustained an OBPI will have impaired movement and movement patterns, which persist and change throughout growth and development. By understanding, defining and measuring how these residual physical deficits impact function and how children and youth perceive the functional impact of their OBPI, it will inform our clinical practice and ongoing research, to provide care that optimizes their abilities and quality of life and minimizes functional disability. The purpose of this research project was to evaluate the functional outcomes and self-perceptions of children and adolescents who sustained an OBPI and required nerve surgery.

Literature Review

Traditionally, OBPI recovery and natural history has been measured with motor evaluations. These typically include population-validated measures: The AMS and The Mallet Scale. Duff and DeMatteo provide an excellent overview of the breadth of assessment tools available and used with this population. Duininneveld et al. stated there is no consensus on the most appropriate outcome measures. Ho developed a functional evaluation for children with OBPI, the BPOM, to guide assessment of functional movement patterns and perceived function and appearance of their affected limb. The Canadian Occupational Performance Measure (COPM) captures the subjective experience of participation during a semi-structured interview identifying occupational goals, with importance, performance and satisfaction scored from one to ten. The Self-Perception Profiles (SPP) for Children and for Adolescents seek to describe perceived competency in multiple domains. The Kidscreen-27 (KS-27) measures health related quality of life across a variety of domains.

Methods

Ethics. The study protocol was approved by the Hamilton Integrated Research Ethics Board. Participants. Children and adolescents ages 9 – 17 years that required primary nerve repair as infants, followed in the McMaster Children’s Hospital OBPI clinic were invited to participate in this cross sectional study. Those who provided informed client or parent consent were included in the study. Clients lost to follow up or with known comorbidities were excluded. The total included participants after exclusions and informed consent was 13. Consent. The Occupational Therapist (OT) explained the research study to the clients and parents. If interest was identified, the objectives and procedures were explained by one or more of the study investigators. Formal ascent and consent forms were collected from all participants. Retrospective consent was obtained from individuals who participated in assessments as part of regular care, within six months prior to initiation of
this study. **Measures.** Participants were seen for a single assessment battery session which included the AMS, Mallet, BPOM\(^7\), the modified Faces Pain Scale (mFPS), SPP\(^{15,16}\), KS-27 and COPM\(^3\). All measures were administered by or under the supervision of a registered OT and/or OT students who underwent the necessary training. Student preparation included review of literature and measure manuals, observation and practice of administration and scoring, and supervised administration and scoring to ensure intra-rater reliability. Measures to ensure safety, comfort, and minimized risks to clients included: explanation of the assessment process, evaluation tools and the opportunity to ask questions and/or modify throughout the assessment. All assessments were scored and recorded in the client record. **Data Collection.** Participant identifiers were coded to anonymize results and the key for the code was stored in a locked office. Collected data and retrospective variables (e.g. Narakas classification and perioperative AMS scores) were entered in Data Collection Sheets. Data was scored, coded and organized in a password protected SPSS database for computation. Statistical analyses were completed to explore hypothesized relationships.

**Acknowledgements**

Thank you to McMaster Children’s Hospital, Hamilton Health Sciences for the time and space to conduct assessments for the study and parking for the participants. Thank you also to Tara Packham, OT Reg(Ont) for her guidance and recommendations for ethics protocol development and planning statistical analyses for the project. Finally, thank you to Emily Ho OT Reg(Ont) for consultation regarding the use and interpretation of the BPOM.

**Results**

**Pain.** 80% (n=10) reported currently experiencing pain and 50% of participants reported pain scores over 3 on the modified Faces Pain Scale. **Occupational Goals.** The participants (n=9) identified functional goals through the COPM. 44% of participants identified goals for “self-care”, 56% for “productivity” and 67% for “leisure”. **Functional Tasks.** On the BPOM, 58.3% of participants scored 16/20 or less on the shoulder tasks, 41.7% scored 16/20 or less on the elbow and forearm tasks and only 25% scored 12/15 or less on the wrist, finger and thumb tasks. **Measures.** KS-27 – Psychological Wellbeing domain t-scores strongly correlated with total AMS scores (\(r = 0.845, \text{at} 0.01\)), BPOM – Total Elbow and Forearm (\(r = .791, \text{at} 0.01\)) and BPOM – Total Wrist, finger and thumb (\(r = .800, \text{at} 0.01\)), and high correlation with the SPP – Global Self-Worth Subscale (\(r = .555\)), although significance was not reached in our sample. Total Mallet scores highly correlated with SPP Global Self-worth mean (\(r = .908\)). This statistic would likely reach significance with a larger sample. Mallet scores also correlated with the SPP Physical appearance (\(r = .507\)). SPP Athletic Competence was negatively correlated to BPOM self-evaluations for “my arm works” (\(r = -.543\)) and “my hand works” (\(r = -.456\)). BPOM total scores had high correlation with SPP Physical Appearance subscale mean (\(r = .503\)) and SPP Global Self-worth subscale mean (\(r = .623\)). SPP Physical Appearance also correlated with KS-27 – Physical Wellbeing t scores (\(r = .771, \text{at} 0.05\)). SPP Global Self-worth means were correlated with KS-27 t scores for Physical Wellbeing (\(r = .628\)), Psychological Wellbeing (\(r = .555\)) and Social Supports and Peers (\(r = .561\)).

**Discussion**

Findings from this study identified pain as factor for this population, however, pain was not identified as a major barrier to functional participation in meaningful activities. Shoulder movement patterns were most affected, followed by elbow, and then wrist and hand. This most likely is representative of the sample, the majority of whom experienced upper OBPI (C5, C6, C7), where distal extremity function is not as affected. Statistical correlations between the KS-27—Psychological Wellbeing domain scores, SPP Global Self-worth subscales, and movement measures (AMS, Mallet, BPOM), confirmed hypotheses that greater functional impairment is correlated with lower psychological wellbeing and lower perceived self-worth in this study population. Analysis also revealed correlations between physical function and self-perceived physical appearance and self-worth, where lower scores in functional domains correlated with lower self-perception scores. Not surprisingly, physical appearance and physical wellbeing scores were also correlated. Lower Global Self-worth scale means were frequently correlated to lower scores in physical and psychological wellbeing, as well as low social support scores. The majority of participants identified functional and participatory goals that reflected some physical challenges related to their affected limb. These goals may be supported by continued occupational and physical therapy to address related functional and/or motor challenges.

**Conclusions/Future Directions**

This study will inform ongoing discussions on core outcome measures to collect for research collaborations, as well as identify potential ongoing service needs for this population, and assist in the design of future intervention trials. Study findings will be disseminated to a peer reviewed journal for publication; the study results and conclusions will be presented to School of Rehab Science MSc OT class and faculty; research findings will be shared and discussed at OBPI conferences. Information regarding study results will be shared with participants in a summary.
References


Exploring the experiences of key stakeholders after implementing a universal design for learning (UDL) approach in a Haudenosaunee classroom

Authors: Carly Bialowas & Chelsea Gagnon, MSc (OT) Candidates 2018, McMaster University
Supervisors: Katie Gasparelli, BScPT, MSc Rehab & Sangita Kamath, OT Reg. (Ont.)

Abstract

Purpose: To explore the experiences of educators, caregivers and an occupational therapist (OT) after implementing a UDL approach in a Haudenosaunee kindergarten classroom. Methods: Semi-structured interviews were conducted to explore the experiences of a UDL approach in one Haudenosaunee kindergarten classroom. The DEPICT method was used to guide thematic analysis on the data collected during interviews. Results: Two themes emerged from the qualitative interviews 1) Change agents and actions and 2) Readiness and realities. Conclusion: Based on the evidence, recommendations have been provided to guide future school-based service delivery that is tailored to the unique needs of this community.

BACKGROUND

Currently in Six Nations of the Grand River, school-based occupational therapy services are provided through direct and consultative approaches. These approaches often involve removing the child from the classroom for therapy and providing teachers with individualized therapy goals. Within Ontario, a new evidence-based service delivery model called Partnering for Change (P4C) is being piloted in provincial schools, which involves an OT working in the school to collaborate with educators to support students. There are three tiers associated with P4C. Tier 1 involves relationship building and knowledge translation to implement UDL. UDL is an inclusionary framework that encourages educators to present accessible information, allows students to demonstrate knowledge in a variety of ways and ensures students are motivated and engaged in learning. When UDL is not meeting a students needs, the OT moves to Tier 2 involving differentiated instruction. Lastly in Tier 3, the OT and educators will provide individualized accommodations. Since Six Nations schools are federally funded, they have not yet received this service delivery model. However, service providers at Six Nations Health services and educators at a Six Nations school wanted to examine the potential of this approach to complement the community's cultural values of relationships and partnerships. The purpose of this paper is to explore the experiences of educators, caregivers and an OT after implementing a UDL approach that supports all abilities in a Haudenosaunee classroom for a single kindergarten class in a Six Nations School.

METHODS

Qualitative research methods were used to gain an in-depth understanding of the experiences of stakeholders. The participants in this study were recruited through purposeful sampling and included one teacher, one educational assistant, the school principal and vice principal, two caregivers and one OT. The OT spent one day per week within the kindergarten classroom for 10 weeks, thereafter participants participated in individual interviews. Interviews were digitally recorded and labelled using pseudonyms to ensure anonymity. The student co-investigators transcribed the recordings verbatim. DEPICT method was used to guide thematic analysis on the data collected during interviews. The first three transcripts were independently read by the co-investigators, a clinician and an experienced researcher to develop the preliminary codebook. Coding consistency was required prior to independent coding by each co-investigator. The remaining transcripts were coded by one co-investigator, which was refined by the second co-investigator. Member checking was completed. To overcome study limitations, the authors implemented a decision trail and had a faculty supervisor review the thematic analysis approach to increase credibility.

RESULTS

The OT participated in the member checking process and was in agreement with the themes. Two major themes emerged and are described below.

Change agents and actions refers to how the OT wellness lens and the educators’ educational lens facilitated reciprocal capacity building to assist in implementation of the UDL approach. Foundational
elements of UDL included open communication, collaboration and a trial and error approach. **Readiness and realities** refers to how stakeholders identified frustrations with the current service delivery model, contributing to their readiness to explore potential solutions. All participants described how the students’ self-regulation and behavioural challenges required them to alter their strategies and utilize innovative approaches to meet the students’ needs. This involved occasionally moving beyond the UDL approach to provide one-on-one supports to students.

**DISCUSSION**

While there are many differences between this pilot project and the previous P4C pilot project, there were similarities in regards to the challenges of traditional service delivery models and the key features of implementing a collaborative approach. Prior to both projects, communication and collaboration were identified to be challenging for educators and the OT due to several system barriers, including lack of time for joint problem solving and inconsistencies of implementing recommendations. Once this project started, it was evident that educators and the OT were able to build stronger relationships, communicate openly and collaborate to incorporate strategies. Additionally, due to reciprocal capacity building both professionals developed an increased understanding of students’ needs. Across both studies there was the common question whether capacity building and UDL strategies were enough to meet the needs of all students. A significant difference in this pilot project was that the strategies used at the UDL level focused on utilizing a trauma-informed and cultural lens. The Circle of Courage is a model that integrates Aboriginal philosophies of personal growth including mastery, belonging, independence and generosity. These components in combination with a cultural advisor’s recommendations were key in designing UDL strategies that aligned with the students’ needs and values.

**LIMITATIONS**

Limitations in sample selection, sample size, study design and study duration mean that the conclusions cannot be generalized to other classrooms and Six Nations schools. It is important to note, the co-investigators are not from Indigenous backgrounds and it is recognized that a cultural advisor should have been a part of this research team. Another limitation is that this paper does not have equal representation in regards to the caregiver perspectives.

**FUTURE DIRECTIONS**

Moving forward, it is recommended that stakeholders modify the P4C model to reflect the specific needs of Six Nations students. In addition, collaboration with CanChild, to develop specific P4C training on how to implement the different tiers, with a focus on self-regulation and a trauma-informed lens is recommended. Future research should include quantitative studies to determine the effectiveness of this service delivery model to assist in allocating funding.

**CONCLUSION**

Stakeholders reported a number of positive experiences while implementing UDL into a Six Nations kindergarten classroom. This project highlights how tiers 1, 2, and 3 are necessary to help meet the needs of more students. The question that still remains, is how to implement these tiers for this specific community. This will require collaboration with the community to develop a unique service delivery model to ensure that students can reach their educational potential.

**ACKNOWLEDGEMENTS**

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**REFERENCES**

The effectiveness of Brief Behavioural Treatment of Insomnia (BBTI) for sleep disturbance in community-dwelling older adults with depression or anxiety

Authors: Méreédyth Bowcott & Audrey Carter, MSc OT Candidates, 2018, McMaster University
Supervisors: Laurie Perrett & Marion Penko, St. Joseph’s Healthcare Hamilton Halton Seniors Mental Health Outreach

Purpose: To explore the effectiveness of Brief Behavioural Treatment of Insomnia (BBTI) on supporting improved sleep for community-dwelling older adults with depression or anxiety, and the potential utilization of the intervention by the Halton Seniors Mental Health Outreach Program (HSMHOP). Methods: Through a case-based, within-subjects study design, three participants received the four-week protocol with pre- and post-intervention measurements evaluating sleep disturbance, sleep related impairment, and satisfaction with sleep, as well as the acceptability of BBTI for participants. Data Analysis: Secondary to small sample size, data was examined for individual trends, and analyzed descriptively through means to identify overall trends. Findings: Participants demonstrated improvement in sleep, some decrease in sleep related impairment, and increased satisfaction with sleep. Participants reported that the intervention was helpful and were neutral on how manageable it was to implement. Discussion: BBTI demonstrates potential utility for HSMHOP in treating sleep disturbance. Further evaluation is required to determine the effectiveness of BBTI, to assess the impact on daily activity and mood, and to measure lasting effects of treatment.

Introduction
Insomnia is one of the most commonly reported complaints in primary care, but is frequently untreated due to challenges in assessment and intervention. Over half of older adults report symptoms of insomnia, with sleep disturbance linked to negative health consequences such as recurrent depression and progression of cognitive impairment. Pharmaceuticals remain the most commonly prescribed treatment for insomnia, despite unclear long-term efficacy of these approaches. Older adults are vulnerable to side effects of hypnotic medications and polypharmacy, putting them at increased risk of falls. While Cognitive Behaviour Therapy for Insomnia (CBT-I) is receiving increasing attention as a non-pharmacological intervention for older adults, contextual restraints such as length of treatment and clinician training decrease its utility for the Halton Seniors Mental Health Outreach Program (HSMHOP). Brief Behavioural Treatment of Insomnia (BBTI) is another non-pharmacological treatment that involves behavioural approaches such as stimulus control, sleep restriction, and sleep hygiene education. Evidence suggests that BBTI is effective in improving sleep onset latency, wake after sleep onset, and sleep quality. Previous research has demonstrated the effectiveness of a four-week protocol with older adults. Furthermore, it does not require additional training to implement, making it a viable option for inclusion in HSMHOP services. While a previous protocol included older adults with mild depression or anxiety, the HSMHOP caseload includes individuals with higher severity symptoms of depression and anxiety. Therefore, with permission from the primary author, the protocol was modified to provide increased support, including all in-person sessions rather than alternating in-person and phone contact.

Methods
A case-based, within-subjects study design was used to examine change in sleep disturbance, sleep related impairment, and satisfaction with sleep, as well as the acceptability of the protocol to participants. Student investigators provided the four-week BBTI intervention to three older adults with sleep disturbance recruited from the HSMHOP caseload using convenience sampling. Pre- and post-intervention measures were used to evaluate sleep disturbance, sleep related impairment, and satisfaction with sleep. Initial assessments included Patient Reported Outcome Measurement Information System (PROMIS) Short-Forms for Sleep Disturbance (8b) and Sleep Related Impairment (8a) to determine baseline severity, and a Sleep History Questionnaire (SHQ) was used to identify specific lifestyle or environmental factors impacting sleep. The PROMIS Sleep Disturbance and Sleep Related Impairment tools were re-administered post-intervention, and a Participant Experience Questionnaire (PEQ) was utilized to collect information on the acceptability of the protocol. Participants also completed the Consensus Sleep Diary-Core (CSD-Core) daily to record sleeping patterns and to track changes.

Data Analysis
Secondary to statistical limitations of a small sample size, data collected through the PROMIS tools were analyzed through response pattern scoring for each participant, and the PROMIS tools and the PEQ were analyzed descriptively through means to demonstrate overall trends. While the CSD-Core had limited utility for data analysis secondary to participants using a mixture of verbal written report and numerical data, available information was utilized to review general trends for individual participants.
Findings

Improved sleep: Overall, participants demonstrated a decrease in sleep disturbance severity as per total score on the PROMIS Sleep Disturbance SF8b, with a mean decrease of 5.33 (M₁=30.66; M₂=25.33) within a total possible score of 40. As demonstrated through available CSD-Core data, quantity of sleep remained generally unchanged, and wake after sleep onset and sleep onset latency demonstrate a slight trend towards decreased wakeful periods. As per items on the PROMIS Sleep Disturbance SF8b, participants reported improved quality of sleep with a mean increase of 0.66 (M₁=2.0; M₂=2.66) and an increase in refreshing sleep, with a mean increase of 1.33 (M₁=2; M₂=3.33) within total possible scores of 5.

Sleep related impairment: Participants demonstrated a decrease in sleep related impairment as per total score on the PROMIS Sleep Related Impairment SF8a, with a mean decrease of 3.00 (M₁=23.66; M₂=20.66) within a total possible score of 40.

Satisfaction with sleep. As per items on the PROMIS Sleep Disturbance SF8b, all participants demonstrated increased satisfaction with sleep by a mean of 1.34 (M₁=1.66; M₂=3) within a total possible score of 5.

Acceptability: As per the PEQ, participants reported that the intervention was helpful with a mean score of 4.33 out of a total possible score of 5. Participants identified that a helpful component of treatment was tracking sleep through the CSD-Core. Participants reported a mean score of 3 out of a total possible score of 5 for how manageable the intervention was, indicating that making a change or doing something new with a “very tired, weary body” was difficult, but that a “common sense” approach and one-on-one support made it easier.

Discussion

Preliminary findings suggest positive effects of BBTI, with decreasing severity of sleep disturbance and some decrease in sleep related impairment. While findings from the PROMIS Sleep Related Impairment SF8a indicate that participants experienced daytime fatigue during the intervention, this is an expected side effect of the sleep restriction component of treatment. Despite fatigue, all participants reported increasing daily activity. Findings that total sleep time remained fairly unchanged at post-assessment are congruent with previous findings suggesting that total sleep time did not show significant change until six-month follow-up. Although quantity of sleep remained unchanged, quality of sleep improved with all participants reporting a more refreshing sleep after treatment, and increased satisfaction with their sleep. Findings emerged suggesting a positive impact of BBTI on daily activity and mood. All participants reported improved mood and increased activity, and engaged in previously meaningful occupations. Despite modifications to the original protocol, PEQ results indicate increased challenges in implementing a behavioral protocol with clients with moderate symptoms of depression or anxiety as indicated by neutral results on the manageability of treatment.

Recommendations. Based on these preliminary findings, it is recommended that HSMHOP continues to evaluate BBTI using outcome measures to ensure effectiveness for their client population. In addition to measuring impact of treatment on sleep disturbance, we recommend the inclusion of measurements for daily activity and mood. Furthermore, outcome measures should be re-administered to examine lasting effects, as per previous research indicating improvements by six-month follow-up. We recommend that clinicians continue to provide all sessions in-person. BBTI principles were challenging for this population to implement secondary to the requirement of significant behavioural change, as indicated by participants’ responses to the manageability of treatment. However, all participants reported that care and support was integral to their success in developing strategies, and implementing the changes necessary to improve sleep.

Limitations

The study presents no conclusive findings secondary to small sample size. The authors acknowledge seasonal changes during implementation of the protocol potentially biasing findings, including a positive confounding factor of increasing daylight on mood and activity, and the negative impact of a heat wave on sleep for two participants prior to post-intervention.

Acknowledgements: The authors would like to thank Daniel Buyssse for permission to utilize and modify the BBTI protocol and education materials, and Colleen Carney for permission to modify the CSD-Core. We also thank our supervisors, Laurie Perrett and Marion Penko for their support and guidance, and the HSMHOP team, including Case Managers Sherrie Cheers, Andrea Oattes and Linda Kallio who provided support throughout the intervention process. Lastly, we wish to thank the participants for their time, dedication and efforts in sharing this experience with us.

References:

Let’s Ride a Bike: A Cycling Workshop for Older Adults to Promote an Age-Friendly Hamilton

Student Researchers: Jennifer Groenenberg, Joey Ziade; Supervisors: Dr. Lori Letts, Dr. Margaret Denton; Institutional Affiliations: McMaster University, Hamilton Council on Aging

Abstract

Purpose: This research presents the development of an evidence-based cycling workshop to help increase older adults’ participation in active forms of transportation. Methods: Using a community-based approach, the workshop design was informed by a simultaneous review of the available literature and a series of consultations with relevant stakeholders. The workshop was then trialled with a group of older adults and a program evaluation form was created. Results: Let’s Ride a Bike is designed as a peer-lead workshop, which consists of an educational component on the benefits/risks of cycling, basic cycling skills and safety, rules of the road, and SoBi rental programs. Participants are then given the opportunity to apply their learning by cycling along one of Hamilton’s outdoor “age-friendly” trails. Implications: This workshop has the potential to improve health of older adults in Hamilton by equipping them with knowledge and skills to participate in cycling as a means of physical activity and transportation.

Introduction

Physical activity guidelines recommend that older adults engage in 150 mins/week of moderate-vigorous physical activity to maintain/improve health. However, Statistics Canada reports suggest that only 12% of adults ages 60-79 meet these guidelines. Age Friendly Hamilton is a community initiative to promote healthy aging, and is currently engaged in a 3-part “Let’s Get Moving” project to enable active transportation among older adults. “Let’s Take A Walk” and “Let’s Take the Bus” were developed between 2014-2017, and the present research contributes to the final component: “Let’s Ride A Bike.” A community based research approach was taken to develop the Let’s Ride A Bike workshop, with an overall purpose to create a sustainable cycling workshop for older adults, which integrates evidence-based teaching strategies with community resources.

Part 1: Review of the Literature

Methods: A review of the literature on older adult motor-skill learning, the impact of cycling on health, helmet use, and cycling safety, was completed to establish foundational knowledge for the workshop. Databases such as PubMed, CINAHL, and National Guidelines Clearinghouse were searched using terms such as “cycling”, “older adults” “benefits”, “risks”, and “motor learning”. All articles were critically appraised and compiled in an annotated bibliography to determine quality/applicability of the findings. Ontario’s Guide to Safe Cycle & CAN-BIKE cycling toolkit were sought to determine cycling standards.

Results: Regular physical activity, including cycling, provides benefits such as preventing chronic disease, maintaining functional independence, and improving mental health. The literature also supported the protective effects of wearing a helmet. However, certain health conditions may contribute to increased cycling risks (i.e. mobility limitations, impaired vision or cognition, and reduced muscular strength). Ontario’s Guide to Safe Cycling and the CAN-BIKE cycling toolkit provided current standards for rules of the road and cycling safety tips.

In addition, the literature indicates that older adults maintain capacity for motor skill learning, but at a slowed rate. Literature also argues the effectiveness of certain learning strategies for older adults, such as experiential learning, using analogies, and enhancing performance expectancy through examples of successful peers.

Part 2: Community Consultations

Methods: In alignment with a community-based approach, consultations were conducted with relevant stakeholders to determine the project scope and resources, older adult learning needs, barriers to cycling, and bicycle teaching standards. Stakeholders included older adults with/without cycling experience, a public health nurse, Manager of Seniors Recreation (Hamilton), Let’s Get Moving project coordinators (Hamilton Council on Aging; HCoA), and a certified cycling instructor.

Results: Older adults reported lack of knowledge on rules of the road and unfamiliarity with bicycle gears, as the main barriers to cycling. They also reported preference for active engagement in learning rather than didactic teaching, and expressed desire to practice cycling to re-establish balance and build confidence. Reports from a previous pilot cycling workshop...
indicated older adult participants valued venue accessibility, knowledgeable trainers, and appropriate size equipment.

**Part 3: Workshop Development**

*Methods:* Literature and stakeholder consultation findings were synthesized to create a workshop manual and coaches’ guide. The student researchers and four older adult volunteer coaches completed CAN-BIKE training to obtain appropriate certification to teach cycling. A pilot workshop was then conducted with the older adult volunteer coaches to determine feasibility and confirm the final workshop design. Finally, a program evaluation form was created to measure participants’ satisfaction.

*Results:* The pilot revealed a need for more visuals during the in-class portion of the workshop (i.e. videos and pictures), and emphasized the need for practicing straight-line riding before moving on to learning skills such as shoulder checking and signaling. Participants also stressed the importance of leaving enough distance between one another to avoid collisions. The final workshop optimizes community resources by using a peer mentorship design (older adult CAN-BIKE certified volunteer coaches), accessible community rooms, age-friendly trails, and Hamilton’s bike share program. The workshop begins in a classroom setting where participants are presented with the benefits and precautions of biking, the SoBi bike share program, equipment safety checks, bicycle safety principles, and general rules of the road. The workshop moves outdoors and continues teaching on-bike skills. Participants then integrate their learning with a group trail ride. At the end, a handout that outlines concepts covered in the workshop and a list of resources is provided to all participants.

**Conclusions/Future Directions**

Using the workshop manual and coaches’ guide, ten sessions will be implemented by March 2019 under the management/oversight of the HCoA. This project sets the stage for HCoA to implement the workshop, evaluate it, and further develop it. It is recommended that HCoA identifies ways to implement a variance of the workshop to address the mobility needs of a variety of individuals (e.g. individuals living with a disability). Overall, based on Bandura’ self-efficacy theory, given that the workshop is led by peers and that older adults have the opportunity for mastery, we anticipate the workshop can be successful in being sustainable and increasing cycling among older adult participants.

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We want to thank Dr. Lori Letts, Dr. Margaret Denton, Shelagh Kiely, HCoA, City of Hamilton Public Health, CAN-BIKE, New Hope, Seniors Recreation, and community older adults.

**Seminal References**

ABSTRACT
Purpose: To explore the experiences of people aging with HIV (PAWH) and the coping strategies used to manage their disability. Methods: A secondary analysis of interviews of 14 men interviewed on 4 occasions over 20 months was conducted. Interviews were thematically coded and analyzed. Findings: Six themes were found that identified coping strategies used by participants aging with HIV to manage the effects of disability. Implications: A role exists for occupational therapists (OTs) to enable and support PAWH to develop coping strategies to manage the effects of disability and engage in meaningful activities.

INTRODUCTION
Due to medical advancements, PAWH are living longer than what was seen in the past. Due to symptoms of the disease and side effects of medication, while progressing through the aging process, PAWH often experience comorbidities which lead to unique disability experiences. Limited research exists that examines the longitudinal experience of living with HIV. By taking a longitudinal perspective, researchers are better able to identify patterns of successful coping strategies used by PAWH to manage the effects of disability. The purpose of this study was to examine the coping strategies used by older men living with HIV to manage the effects of disability over time.

METHODS
A secondary analysis of male participants from a larger qualitative longitudinal study was conducted. Participants were English speaking males with a mean age of 59 years old (range 50-73 years) and a mean time since diagnosis of 21.7 years (range 10-30 years). Nine men reported being single, 4 lived with a partner and 1 was divorced. Participants were recruited through HIV community service organizations in Southern Ontario and through the Realize website. A series of four semi-structured interviews scheduled at 5-month intervals were conducted using the Episodic Disability Framework to guide the interviews. Interviews were audio-recorded and transcribed verbatim. Detailed information on methodology is available elsewhere. To begin the analysis, two investigators independently coded transcripts from one participant and met to develop the initial codebook. Codebook development was an iterative process involving ongoing discussion and revision. Three participants were then coded independently with a subsequent meeting to refine the codebook and resolve discrepancies through consensus. Following this, all researchers met to identify patterns in the codes, combine codes and develop themes. Regular meetings were scheduled with the research team to review the findings, with resolution reached within the meeting. QDA-Miner was used to manage the data.

RESULTS
Six themes emerged related to coping strategies for PAWH.
1. Valuing social support: Many participants engaged in reciprocal social support over time by receiving support and giving support to others. Two participants specifically discussed finding value in providing support to others and mentioned this over time in their interviews. A variety of social supports were identified including: friends and family, peer networks, support from health and social services and virtual avenues. Two participants identified satisfaction with their level of social support and preferred being alone. When asked about satisfaction with social support, one participant stated: “If I go home and I’m by myself I really get down on myself and I don’t know why but I do. But then as soon as I go to the [HIV Community Organization] everything changes”.

2. Solving Problems to Support Self-Management: Many participants actively engaged in problem solving to develop strategies to manage their health challenges or disability experience. Often problem solving related to self-management strategies included: cognitive strategies, modifying the task, prioritizing, proactive stress avoidance, identifying triggers, medication management and acceptance of limitations. One individual identified the following: “…I can manage [symptoms], but I think cause…I know the issue so I can deal with it.”

3. Engaging in Healthy Pursuits: Healthy lifestyle choices were described by the participants as: maintaining a balanced diet, physical exercise, abstaining from drug and alcohol use and getting adequate sleep. Participants viewed healthy choices as a part of their lifestyle, as described by one participant: “…it all really stems on your lifestyle…Whether you age well or whether you don’t age well. And my lifestyle is very good now. It wasn’t before because of drugs and everything else but that’s all… I don’t do anything like that”.

4. Using Functional Aids to Promote Activity: The use of functional aids (i.e. orthopedic shoes, walking canes,
and scooters) was seen as an effective way to cope with challenges in participation due to physical limitations and disabilities. When asked about new orthotics, one participant stated: “I walk more... I'm not in as much pain, or I'm not in pain anymore. So, it helps.”

5. Advocating for Self-Involvement in Care and Support: The ability to advocate for resources (i.e., medication and finances) was a strategy to manage challenges from disability. Participants identified that by advocating for elimination of certain medications, they have a say in their care and play a role in managing side effects, as described by this participant: “We [PAWH] started questioning the doctors. What’s the medication going to do for me. What are the side effects?”

6. Looking into the Future: Participants’ perspectives and acceptance of their illness and aging allowed them to become future oriented. Looking into the future was used to represent the unique perspective many long-term survivors living with HIV had on life, aging and disability. One participant described his perspective: “…I’ve lived with [HIV] longer than I haven’t which is different from most people... that makes a big change in how I look at life... I’m positive I’m not going to die from it. I’m going to die from old age in a bed or something like that”.

DISCUSSION

These findings suggest that PAWH use a number of coping strategies to successfully manage their disability. Over the 20-month period, coping strategies used by participants seemed consistent, with very minimal fluctuation. Sometimes participants linked strategies specifically to a symptom of HIV or to an effect of aging. However, due to the complexity of the aging with HIV experience this could not always be teased apart. Participants identified a variety of social supports which helped to manage the effects of disability. Of note, was the use of virtual access, which creates an even larger landscape of available supports. Participants also engaged in self-management strategies and problem solving, specific to their needs, especially when participants could identify a factor that triggered disability. Similarly, accessing functional aids were described with a very clear link to a triggering cause. Proactive coping strategies were also seen among participants through pursuing healthy lifestyle choices and advocating for their care. An important finding was the understanding that many long-term survivors are able to be future-oriented. This outlook reinforces the importance of incorporating goal setting into care, with a focus on managing the effects of HIV and aging. The findings support the role for OTs to provide education on HIV and aging, and related coping strategies. OTs can work with clients to determine which strategies are helpful, and when and how to use these strategies effectively. OTs are also well equipped to work with PAWH to set realistic goals, conduct task analyses and provide support to accomplish said goals. Lastly, there is a role for OT in advocacy to enable participation in occupation through accessing necessary supports and resources.

Strengths and Limitations: A strength of this secondary analysis is the independent coding and iterative process of analysis and development of consensus. A limitation is that the researchers were not a part of the interview process, and thus some information that could inform this paper may have been missed such as mannerisms and the personality/humour of participants. In addition, a timeframe of 20 months may not have been sufficient to determine fluctuations or changes in coping strategies as a means of managing disability. The participants were also recruited through HIV community organizations which may mean that they were more mobile and experienced less disability then those who do not access these services.

CONCLUSIONS/FUTURE DIRECTIONS

The findings from this secondary analysis provide insight into the coping strategies used by PAWH over time. By better understanding a person’s experience, rehabilitation professionals can tailor interventions to promote coping to manage the effects of disability. Future research should focus on understanding the triggers of disability and specific strategies that rehabilitation professionals can use to support this population. Similarly, research to determine the current barriers to PAWH accessing rehabilitation services should also be undertaken.

ACKNOWLEDGEMENTS

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References


Evaluating Outcomes at the Hamilton Program for Schizophrenia
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Abstract
The Hamilton Program for Schizophrenia (HPS) is working towards the development of a formal program evaluation. The first objective of this study was to examine the effectiveness of Cognitive Adaptation Training (CAT) and Recovery-Oriented Cognitive Therapy (CT-R) on perceived personal recovery and activity levels in individuals with schizophrenia. The second objective was to examine the appropriateness of the Personal Recovery Outcome Measure (PROM), the Recovery Assessment Scale (RAS), and the Activity Engagement Measure (AEM) for use with the clientele at HPS in measuring personal recovery and activity levels. The study included 14 participants who all received intensive case management (ICM), and seven who also received CAT and/or CT-R. Participants completed all measures at phase one (T1) and phase two (T2) with a four-month intervention phase between. A follow-up survey was developed to understand client opinions of recovery and administered measures. Data was inputted and analyzed through PSPP, and descriptive categories were developed by authors to organize qualitative results. Preliminary results show statistically significant changes in personal recovery for those receiving both ICM and CAT and/or CT-R. Qualitative results show clients perceive recovery in a multitude of ways. Given a small sample size and possible sampling bias, results should be interpreted with caution. Study limitations and suggestions for future program evaluation are included.

INTRODUCTION
The Hamilton Program for Schizophrenia’s (HPS) mission is to facilitate recovery in people with schizophrenia through the promotion of hope, wellness, choice, and personal growth (Hamilton Program for Schizophrenia, 2018). People with schizophrenia can experience a variety of positive and negative symptoms which can impact function in their daily occupations. In an effort to meet the Local Health Integration Network’s expectations for service quality assurance (HNHB LHIN, 2014), HPS is working towards the development of a formal program evaluation to ensure the recovery needs of HPS clients are being met.

Currently, HPS provides clients with intensive case management (ICM) and depending on individual needs, case managers may also provide Cognitive Adaptation Training (CAT) and/or Recovery-Oriented Cognitive Therapy (CT-R). CAT is a compensatory intervention which involves adding cognitive aids to an individual’s environment in order to cue and facilitate completion of daily occupations (Velligan et al., 2000). CT-R is a remedial approach where case managers work with an individual to decrease negative beliefs patterns and increase positive ones to help attain personal recovery goals (Grant, Huh, Perivoliotis, Stolar, & Beck, 2012).

For this study, HPS’s priority is to determine whether clients’ personal recovery (PR) and activity levels (AL) improve over time and how to best measure recovery in HPS clients. Out of additional interest, HPS requested the authors to compare PR and AL outcomes of clients who received both ICM as well as CAT and/or CT-R to clients who only received ICM.

METHODS
Fourteen clients at HPS were recruited to participate in the study through the use of promotional posters in HPS offices. All participants completed phase one (T1) which consisted of consent and self-report measure completion. One participant was lost to follow-up thus leaving 13 participants in phase two (T2) which consisted of consent, self-report measure completion, and a follow-up survey. Between T1 and T2 there was a four month intervention phase. Participants either received only ICM (control group) or received both ICM, and CAT and/or CT-R (intervention group). Participant involvement in a group depended on previous interventions received at the discretion of their case manager.

Self-report measures were chosen to capture participants’ PR, and their AL. Personal recovery can be defined as the subjective experience of an individual living with severe mental illness, in which the individual assesses and defines the recovery process for themselves (Leonhardt et al., 2017). For these individuals, the literature has noted engagement in meaningful activities is important to mental health and recovery outcomes. (Hancock, Honey & Bundy, 2015).

The first chosen measure is the Personal Recovery Outcome Measure (PROM), a self-report instrument designed to evaluate PR needs of individuals with severe mental illness using community mental health services (Barbic & Rennie, 2016). The second measure is a modified version of the Recovery Assessment Scale (RAS), a self-report instrument measuring five domains of personal recovery: willingness to ask for help, personal confidence and hope, goal and success orientation, not being dominated by symptoms, and reliance on others (Salzer & Brusilovskiy, 2014). The third self-report measure is the Activity Engagement Measure (AEM). The AEM is designed for clinicians and clients to use collaboratively. It aims to promote an understanding of the client’s perspective on their daily activity patterns, and how engagement in certain activities has changed over time (Krupa, et al., 2010). In addition, a seven item follow-up survey was designed by authors to obtain additional information about client views on personal
recovery and their opinion of the chosen self-report measures. Following T2, case managers at HPS were sent a follow-up survey to capture how ICM, CAT, and CT-R are completed with HPS clients. This need was identified by the authors to explore possible variability between case managers and how that may impact study results.

Following data collection, measures were scored and totalled then inputted into PSPP. Missing data was handled using “average imputation” and an intention to treat analysis was completed for one participant lost to follow-up. Independent samples t-tests were used to determine statistical significance between groups for baseline scores and change in PPR and AL. Paired sample t-tests were used to determine statistical significance in PPR and AL improvements within control and intervention groups. Average ratings and standard deviations of each measure’s clarity were compared.

Ethics approval was not sought for this study.

**RESULTS/DISCUSSION**

Control and intervention groups did not differ significantly in years at HPS or days between T1 and T2. Groups did however differ significantly in baseline PPR and AL. This should be considered in interpreting results which compare these two groups.

No statistical significance was found when clients’ change in T1 to T2 scores were compared. This speaks to program evaluation overall, though study limitations impact reliability of these results.

In regards to appropriateness of chosen self-report measures, results suggest that the AEM may not be able to identify change in activity levels. Clients preferred the RAS and AEM over the PROM however, clarity of measure was rated highest for the PROM overall.

In regards to PR and AL changes over time, results suggest only PR, as measured by the PROM, may improve for clients receiving both ICM, and CAT and/or CT-R. However, the difference in PR change on the PROM between intervention and control groups was not statistically significant. No other statistically significant differences were found in either group for PR or AL change on the RAS or AEM.

In terms of follow-up survey results, meanings of PR were found to be variable amongst participants. None of the chosen measures captured all meaningful components of HPS clients’ interpretations of PR. This information will be provided to HPS, along with suggestions for choosing evidence-based self-report measures for future program evaluations.

**FUTURE DIRECTIONS**

In an attempt to help guide future program evaluations at HPS, the authors have identified study limitations and provided suggestions to help mitigate these limitations in the future. Main limitations include: allocation and baseline measurement biases, overlap in therapeutic techniques between control and intervention groups, multiple study goals, lack of specificity in research questions, small sample size, non-validated outcome measures, a short follow-up period, and no ethics approval. Recommendations to improve research quality are outlined in the final report, but strategies may include: measuring baseline in the early stages of HPS involvement, increasing time between T1 and T2 measures, selecting measures that have been psychometrically validated, and focusing solely on program evaluation versus also comparing effectiveness of CAT and/or CT-R.

Overall, this study was successful in meeting HPS’s goal to begin the development of a formal program evaluation. Through taking steps to improve research quality, the generalizability, reliability and validity of study results will increase. From this process, HPS will begin to accumulate evidence of their impact on the personal recovery and occupational engagement of HPS clients.

**Acknowledgments**

We would like to thank the clients and case managers at the Hamilton Program for Schizophrenia for their participation in this research project. We would also like to thank project supervisors Gord Hirano and Milinda Alexander for the opportunity to participate in this research, and Jill Mary who helped to carry-out the first phase of this research project. Additionally, we would like to thank McMaster University faculty members Dr. Tara Packham and Carol DeMatteo for coordinating this research experience and supporting us throughout.

**References**


INTRODUCTION

Clients seeking support from amputation rehabilitation have a wide range of lived experiences. The most common causes of UE amputation in North America are trauma (77%), congenital (9%), tumours (8%) and disease (6%).

Prosthetic device training is a large component of amputee rehabilitation, yet many individuals still abandon their prosthetic devices. There are three types of common prosthetic devices with varying rejection rates: passive (6-100%), body powered (80-87%), and myoelectric (0-75%). Large inconsistency in rejection rates can be attributed to differences in study methodologies and varying sample compositions within the research.

In a qualitative study, results showed that barriers for some participants were not considered barriers for others despite all using a myoelectric device. Results indicated that if an individual embodies the prosthesis, they appear to overcome certain barriers. This concept of embodiment can be further assessed through an evaluation of relevant psychosocial factors. The biopsychosocial model may help to understand reasons for prosthetic device abandonment. This model illustrates that health outcomes are a result of the interaction between biological, psychological, and social factors.

The purpose of this scoping review is to explore the current state of literature and provide potential reasons for prosthetic device abandonment in people with UE amputations.

METHODS

Identifying the Research Question. “What are the reasons for prosthetic device abandonment in people living with UE amputations?” Identifying Relevant Studies. The keywords chosen for the database searches were (prosthe* AND upper extremity AND (reject OR satisfaction)), including any relevant Medical Subject (MeSH) Headings. In addition to electronic databases, a grey literature search included Google Scholar, Web of Science and the Amputee Coalition & Veterans Affairs Canada webpages. Study Selection. All English articles were included if (a) adults with UE amputations were the only participants or could be differentiated from other populations and (b) reasons for abandonment were explicit. Articles were excluded were (a) lower limb amputations and (b) articles that discussed participant satisfaction or device use and disuse as authors could not assume the opposite would equal abandonment. Titles were split amongst reviewers for an abstract review, then again for a full-text review with discussion for uncertainty throughout. Charting the Data. A table to chart the data was developed simultaneously by the reviewers, which was used to extract pertinent data from each article. Each study’s objectives, population, design type, outcome measures used and reasons for prosthetic device abandonment were documented. Collating, Summarizing and Reporting. The reasons for abandonment in the article data table were used to synthesize themes. Consultation. Four experts in the field were consulted through email to comment whether the identified themes were indicative of everyday practice.

Research shows rates of prosthetic device abandonment are dramatically high; however, the reasons behind abandonment are less understood. This scoping review aims to explore the current state of literature and provide potential reasons for prosthetic device abandonment in upper extremity (UE) amputations. The search yielded 10 documents in which the reasons for abandonment could be categorized into themes of comfort and function. Reasons for abandonment regarding comfort included weight, temperature, and device fit, among others. Functional reasons included feeling more functional without the device, lack of control and sensory feedback, among others. Future research should focus on qualitative work regarding psychological and social factors of abandonment as many pre-designed surveys are focused on biological factors as seen in this scoping review. Therapists might pre-emptively mitigate future prosthetic device abandonment by understanding the underlying reasons while treating clients with a holistic biopsychosocial lens.
A total of eight articles and two grey literature documents met the inclusion/exclusion criteria for this scoping review. The reasons for abandonment found in each article could be synthesized into two overarching themes of comfort and function and will be presented by device type in relation to these two themes.

### Passive Prosthetic Device.

**Comfort.** The general theme of comfort was a reason for abandonment specifically in relation to weight, temperature and perspiration of a prosthetic device. **Function.** A reason for abandonment with regards to function was lack of durability was noted.

### Body Powered Prosthetic Device.

**Comfort.** The weight, temperature, and harness fit of a body powered prosthesis were leading causes of discomfort and eventual abandonment. **Function.** Difficulty with movement, control, and strength were reasons why the user felt just as, or more functional, without the device and abandoned their prosthetic device.

### Myoelectric Prosthetic Device.

**Comfort.** Weight was a major cause of discomfort and abandonment, possibly due to an uneven weight distribution with a myoelectric device. Temperature, perspiration, pain and poor fit were also comfort related factors in prosthetic device abandonment. **Function.** A lack of sensory feedback lead to abandonment as well as difficulties with dexterity, lack of speed and lack of durability.

### Prosthetic Device Type Not Specified.

**Comfort.** Factors in comfort leading to abandonment included weight, temperature, perspiration, and skin irritation. Pain and improper socket fitting also contributed to prosthetic device abandonment. **Function.** Device use that did not meet one’s lifestyle needs, lack of sensory feedback, issues with available technology, difficulty with use, lack of control, and lack of training all lead to device abandonment due to functionality issues. There are discrepancies in perceived need in relation to prosthetic device availability. Participants have also stated they manage better without the prosthetic device.

Since existing pre-designed surveys have a heavy focus on biological factors future research should focus on qualitative work regarding psychological and social factors of abandonment. For example, surveys could explore psychological factors by including questions regarding an individual’s readiness for prosthetic device use and the impact on abandonment or retention rates.

### CONCLUSION

OTs working in amputation rehabilitation clinics should explore individuals’ thoughts on prosthetic device use. Comfort and function as they affect abandonment could be influenced by biological factors (i.e. stump is changing in size), psychological factors (i.e. personality, resilience, managing expectations for prosthetics), and social factors (i.e. support from family, friends, co-workers, therapists who follow).

The common reasons for prosthetic device abandonment outlined in this scoping review should be closely considered when prescribing prosthetic devices or providing training on their use. By being aware of these issues related to comfort and function, therapists might pre-emptively mitigate future prosthetic device abandonment. It is clear there is an increasing importance in recognizing the psychological and social factors, as suggested by the biopsychosocial model, to truly understand the range of reasons in prosthetic device abandonment.

Limitations of this review include the focus on adults meaning results may not generalize to the pediatric population, and inclusion of English only papers may have limited insights into cultural influences.

### ACKNOWLEDGEMENTS

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### REFERENCES

Abstract: Individuals with serious mental illness (SMI) experience increased risk of several chronic diseases. The Stanford Chronic Disease Self-Management Program (SCDSMP) is an evidence-based, six-week workshop that has shown to be effective at improving self-management and health behaviours in people with chronic diseases. The purpose of this program evaluation was to determine whether the Hamilton SCDSMP, Take Charge!, would allow individuals with SMI awaiting intensive case management (ICM) to improve self-management skills and strategies. 16 individuals were recruited from the Intensive Case Management Access Coordinator (IntAc) waitlist. Four Stanford, self-report outcome measures were administered at the start and end of the program: Health Distress, Social Role Activities Limitations, Self-Rated Health, and Self-Efficacy for managing Chronic Disease six-item scale. Descriptive statistics and paired t-tests were to be completed to evaluate changes in scores. Five individuals attended first and last sessions and completed outcome measures (n=5). Paired t-tests were not completed due to small sample size. Means, standard deviations, and ranges from baseline to follow-up indicate minor improvements for all outcomes. The mean composite score for the group decreased by 2.9 (SD 1.8), indicating improved outcome. SCDSMPs may have positive impacts on the health of people with SMI, although further evaluation is recommended. Barriers and facilitators to their participation in SCDSMPs were identified in the literature, and recommendations for future programs were made.

Introduction

Individuals with serious mental illness are at an increased risk of several chronic diseases and may experience a shorter life expectancy than the general population. 1 The Stanford Chronic Disease Self-Management Program (SCDSMP), and its modified versions, has emerged as an effective intervention to improve self-management and health behaviours in individuals with several chronic diseases, and preliminarily in those with SMI. 2-3 Built on theories of self-efficacy, the SCDSMP group workshop is run weekly for six weeks in the community, and covers topics such as nutrition, exercise, stress management, and healthcare communication.2 Action planning, modelling, and problem-solving are used in each session to build self-efficacy and allow for participants’ growth. 2 Due to preliminary evidence for SCDSMP, and its’ reported success within other regions in Ontario, clinicians at the Hamilton Program for Schizophrenia (HPS) were interested in evaluating its use for individuals awaiting intensive case management (ICM) services on the IntAc waitlist. The purpose of this program evaluation was to determine whether the Hamilton SCDSMP, Take Charge!, would allow individuals with SMI awaiting ICM to improve self-management skills and strategies.

Methods

Participants were recruited from the IntAc ICM waitlist to attend the Take Charge! SCDSMP. Researchers were not involved in the recruitment or implementation of this program.

16 individuals agreed to take part in the six-week program, all of whom had confirmed mental health diagnoses, and may or may not have been accessing additional healthcare resources while participating in the program. The program was advertised online and was open to all individuals with chronic disease in the region. Peer facilitators were informed that participants were being referred from the ICM waitlist, but were not given additional mental health training prior to running the group.

Four outcome measures were chosen to evaluate the group, which were administered at the start of the first week and end of the sixth week. The self-report outcome measures, taken from the Self-Management Resource Center, were: Health Distress, Social/Role Activities Limitations, Self-Rated Health, and Self-Efficacy for managing Chronic Disease 6-item Scale. 4 Participants were rewarded with $5-10 gift cards for completing outcome measures. Paired t-tests and descriptive statistics were to be completed using Stata after receiving the post program outcome measures to determine if there were any statistically significant changes from week one to week six.

Results

A total of 16 individuals from the ICM waitlist signed up for the Take Charge! program. Nine of these individuals attended at least one session, and five attended both first and last sessions and completed outcome measures (n=5). This indicates a 44.5% drop-out rate among participants between the first and final session. Participants attended a mean of 4.3 and a median of 5 sessions.

Paired t-tests were not used to evaluate outcomes due to the high drop-out rate and small sample size. Means, standard deviations, and ranges for baseline and follow-up scores for all outcome measures were calculated; reverse scores for the Self-Efficacy
outcome measure were used to unify the scoring format, and composite scores were calculated by summing the totals for each outcome measure. Lower scores indicate improved outcome. Minor improvements were seen from baseline to follow-up scores in self-reported social/role activities limitations, self-rated health, health distress, and self-efficacy. The mean composite score for the group decreased from 15.0/24.0 (SD 3.2) at baseline to 12.2/24.0 (SD 4.7) at six-weeks, indicating a change of 2.9 (SD 1.8).

Discussion
Descriptive statistics showed that the SCDSMP may have positively impacted health outcomes, however, results cannot be generalized due to small sample size and large standard deviations. Since t-tests could not be completed, authors conducted a literature search to identify facilitators and barriers for individuals with SMI to participate in SCDSMPs, and to make recommendations for future programs.

Many benefits of the SCDSMP were noted in the literature. The group format allows for social interaction and positive role modeling. 5 Additionally, by hosting the group in a community space, and by having the group lead by peer facilitators, participants are more likely to feel comfortable and less threatened.6-7 Social interaction, while seen as a benefit to the program, may also be a barrier for individuals with social anxiety.6-7 The program also relies on the assumption that individuals withhold a certain level of health literacy, which may not be realistic for all individuals with SMI. 6 Similarly, the program does not explain the correlation between mental and physical health, a connection that not all individuals may be able to make independently. Perhaps most importantly, the SCDSMP fails to recognize an individual’s context, relying largely on the biomedical model. 6-7 Given that individuals with mental illness are more likely to experience low socioeconomic status, 6-7 this is a major barrier of the program.

In order to improve the current SCDSMP, the following recommendations are made: 1) recruitment should be completed using the Transtheoretical Model of Change 8 to ensure participants are willing and able to make behaviour modifications, 2) all participants should be educated on the goals and objectives of the program, as well as the connection between mental and physical health prior to attending, 3) peer facilitators should receive additional mental health training, and 5) ICM staff should receive training on self-management to encourage continuity after the program finishes.

Several adaptations of the SCDSMP have been created for individuals with SMI. A few of these address the barriers listed above, and may be beneficial to consider moving forward. HARP 6 and Living Well 7 are examples of such programs that have supporting evidence showing improved health outcomes in individuals with SMI. Additionally, the Illness Management and Recovery Program (IMR) and Integrated Illness Management and Recovery program (I-IMR) are evidenced based group programs designed to help people with SMI manage their mental health symptoms, prevent relapse, and promote recovery. 9 These groups could also be used as an alternative to the SCDSMP for this population.

Conclusion
The current evaluation showed minor benefits of the SCDSMP for individuals with SMI, but results should not be generalized. A future evaluation should be done using the above recommendations to explore this further. HARP, Living Well, and the IMR/I-IMR may be beneficial alternatives to the SCDSMP for this population, depending on funding, staffing, and goals of implementation.

References
Driving Uninterrupted: Older Drivers’ Perceptions about Maintaining their Driving Skills
Students: Chiarina Crawford & Nitsa Tagaras (MSc. OT Candidates 2018) Supervisors: Brenda Vrkljan PhD, OT Reg. (Ont.) & Ruheena Sangrar, PhD student, OT Reg. (Ont.), School of Rehabilitation Science, McMaster University

Abstract: Driving is an important activity that enables engagement in everyday occupations. As individuals grow older, there is concern about the effect of health and medical-related changes that can affect their fitness to drive. To compensate for such changes, many use self-regulatory strategies, such as not driving at night or on highways. Further understanding of their perspectives when it comes to maintaining their driving skills can inform development of proactive programs led by OTs that can support their ongoing mobility, including life after driving. Methods: Transcripts from 4 focus groups with 23 older drivers (mean age: 79.60, SD: 5.24, 11M/12F) were examined by 2 student reviewers using inductive thematic analysis. Results: Three main themes were identified: 1) ‘AUTO’biography: the link between licensure and occupational identity; 2) self-awareness of behind-the-wheel accommodations and accountability as an ‘aging’ driver; 3) taking action (or not) to address changes in driving performance. Conclusions & Clinical Considerations: Findings related to the Transtheoretical Model resulted in profiles of drivers with various levels of awareness and intent to modify driving. Findings can inform considerations for OTs and other clinicians when it comes to supporting community mobility.

Introduction: Canada’s population is aging, which is having an impact across all areas of daily life, including our roadways. The proportion of drivers aged 65+ is the fastest growing segment of road users (Transport Canada, 2016). Driving is identified as an important occupation, particularly in older adulthood, where it facilitates independence and social connectivity (Ragland, Satariano, & MacLeod, 2004). Unfortunately, older drivers are at a high risk of at-fault collisions (Massie, Campbell, & Williams, 1995). Many factors have been attributed to their heightened crash rate, including changes in health due to aging and medical conditions, declines in driving confidence and comfort, bad habits, or a combination thereof (see Marshall, 2008). While some argue that older adults should just give up driving, loss of licensure can negatively impact occupational identity (Vrkljan & Polgar, 2007). Given the importance of this occupation, many older adults adapt their driving; a process referred to as self-regulation (Donorffino et al., 2009). Evidence suggests a relationship between these adaptations and changes in one’s lifestyle, rather than functional impairments, although this link is not yet clear (Molnar et al., 2014). Further examination of self-regulation from the perspective of older drivers can identify opportunities to intervene early when it comes to maintaining behind-the-wheel skills as well as planning ahead for driving retirement. The purpose of this study was to explore the perspectives of older drivers with the aim of informing programs that can support their mobility. The following research question was addressed: What are older drivers' perceptions when it comes to maintaining their driving skills, and, more specifically, how and why might they do so?

Methods: Data Collection & Analysis: This qualitative study is part of a larger project, where the aim was to consolidate the perspectives of older drivers, OTs, and driving instructors to inform the design of programs focused on supporting community mobility. The current project analyzed data from focus groups of older drivers, where beliefs and concerns about driving at this life stage were explored. Focus groups were co-facilitated by two researchers and an older adult research partner. Each group (5-8 participants), lasted 1.5 to 2 hours and was transcribed verbatim. Transcripts were analyzed using inductive thematic analysis from which common themes were identified. Participant recruitment involved a database of older drivers from previous research. A total of 4 focus groups comprised of 23 participants were completed (mean age: 79.60, SD: 5.24, 11M/12F). To be included, participants were aged 65+ with a valid license, drove ≥ 1x per week, had no medical contraindications for driving, and spoke English fluently.

Results: From the analysis, three major themes emerged that reflected older drivers’ perspectives when it comes to maintaining their driving skills. Key quotes exemplify each theme. Pseudonyms are used to ensure confidentiality.

Theme #1: ‘AUTO’biography: the link between licensure and occupational identity. The first theme reflects the meaning of driving in the life stories shared by older drivers. This meaning was often detailed in a long and storied history with their automobile that began when they were young: “I was driving my dad’s dump truck at 10. I had my license at 15 because we were farmers...” [Bertha, 89]. Participants also spoke to the independence afforded by current access to their automobile: “Well I would say that it’s my sense of being independent. People will be kind if you can’t drive and pick you up...I just think that’s it’s so nice to be able to get in my car...I feel as though I’ve achieved something for the day...” [Samantha, 83]. While driving was closely linked to their independence, participants also acknowledged their dependence on this mode of transportation, which was attributed, by some, to where they lived (e.g., “...I live in a rural area, there’s no bus service there’s no sidewalks...so driving for me is extremely important” [Joseph, 80]) and also occupational roles (e.g., “I need to be able to do things...go places, pick up my grandkids...” [Eloise, 71]). For older adults driving enabled independence, yet they were also dependent on their automobile to maintain roles and everyday routines.

Theme #2: Self-awareness of behind-the-wheel accommodations and accountability as an ‘aging’ driver. This theme reflects differences across participants in recognizing their limitations and making appropriate changes to remain fit to drive. Some participants were aware of recent changes in their functional abilities and, in turn, the effect it had on their driving: “There were times when I was younger I would go out but now...I just stay away from certain situations I knew were going to be stressful” [Robert, 71]. Others felt their behind-the-wheel skills had remained intact: “I’m such an excellent driver...60 years of driving and I’ve avoided it all”
Despite differences with respect to their own driving ability, the notion of being responsible for one’s actions on the roadway was emphasized: “I think we can become a little bit arrogant... We think we have all the necessary skills when we don’t... I think we need a wake-up call from time to time” [Robert, 71]. Participants differed in their level of awareness of their own behind-the-wheel skills, as reflected in their use (or non-use) of self-regulatory strategies (e.g., not driving at night, highways).

Theme 3: Taking action (or not) to address changes in driving performance. Participants in the study shared if they had taken action to address changes in their driving ability, which ranged from ‘no action’ to seeking proactive opportunities to undergo a more formal evaluation of their driving skills in an effort to maintain or even improve their on-road performance. Participants also shared the conditions under which they would be inclined to participate in a driver retraining program on their own accord. For example, a participant indicated how a ‘near miss’ would propel him to seek such a program: “If I had a close call or something I thought, ‘How did that happen? How did I miss that?’ Then I would think about that for sure” [Robert, 71]. However, a few participants indicated they would not seek such retraining voluntarily: “Yeah, when they force me to do something, I will take it” [Hubert, 72]. Among those who reported taking proactive measures to maintain their skills, a participant shared how he arranged an on-road evaluation with a driving instructor: “Three or four times in the last 6 or 8 years I go to the driving school every 2 years and I get their crabbiest instructor to go out with me, which is just fine” [Ned, 90].

**Discussion:** Results from the focus group analysis suggest older drivers can be at various stages of change when it comes to efforts to maintain their behind-the-wheel skills, which includes those who do not acknowledge or invoke any changes to their driving. Given this level of variability, it is critical to recognize that changes in this particular occupation is often an individualized process, which is not surprising given the longstanding importance of driving to occupational identity. Hence, using the Stages of Change from the Transtheoretical Model (Prochaska & Velicer, 1997) may be particularly helpful to profile older drivers who are not yet a medical risk behind-the-wheel. Such profiles can ensure clinical approaches undertaken are congruent with the needs of the older driver in question (See Table 1). Planning ahead when it comes to driving cessation is also critical. Given our expertise in enabling occupational performance, OTs can be leaders in supporting older adults to navigate changes in mobility.

**Limitations:** Findings should be considered in light of certain limitations. For example, perspectives shared about driving in older adulthood may not be generalizable to the larger Canadian population, as most participants were recruited from existing databases. However, the inclusion criteria were flexible, and, as such, a range of responses and experiences were elicited. While the student researchers were not able to attend the focus groups, they listened to each recording alongside the transcripts, which were analyzed without being influenced by seeing the older drivers who participated in the project.

**Conclusions:** Older drivers’ can differ when it comes to their perceptions of their own skills and corresponding actions undertaken (or not) with respect to their on-road behaviour. Findings from the current study inform research that is currently underway, where the focus is on further developing OT’s leadership in proactive programs that support mobility in older adulthood, particularly with planning ahead when it comes to driving cessation.

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**Table 1. Meeting older drivers at their respective stage of change: Considerations for clinicians**

<table>
<thead>
<tr>
<th>Stages of Behaviour Change</th>
<th>Profiles of Older Drivers</th>
<th>Examples of potential clinical approaches</th>
</tr>
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<tbody>
<tr>
<td>Pre-Contemplative</td>
<td>Limited or no awareness of current driving behaviour.</td>
<td>Public health approaches about mobility (e.g., commercials, videos); Initiating discussions around driving and mobility with clients (e.g., creating clinician ‘conversation starters’)</td>
</tr>
<tr>
<td>Contemplative</td>
<td>Awareness of driving skills, including deficits, but no changes in driving behaviour.</td>
<td>Utilize motivational interviewing strategies; provide self-assessment tools on driving comfort/safety; recommend education, which could include discussions with peers around maintaining driving skills.</td>
</tr>
<tr>
<td>Preparation</td>
<td>Considering changes to maintain driving behaviour.</td>
<td>Provide more action-oriented strategies for seeking feedback and resources for proactive opportunities to maintain skills (e.g. on-road evaluation/lessons with a driving instructor).</td>
</tr>
<tr>
<td>Action</td>
<td>Awareness of driving skills and using self-regulatory and other behind-the-wheel strategies.</td>
<td></td>
</tr>
<tr>
<td>Maintenance</td>
<td>Seek resources and continue to follow-up on driving skills.</td>
<td>Periodic check-ins with clients and continued discussion around planning ahead for driving cessation and community mobility.</td>
</tr>
</tbody>
</table>

**References:**


Development of the McMaster Handwriting Assessment Protocol 3rd Edition

Katelyn Boehm, Andrea Harrower, Zoe Hodgins & Meredith Reesor; M.Sc. OT Candidates 2018
Supervisors: Julia Lockhart, M. Ed. OT Reg.(Ont.) & Nancy Pollock, M.Sc. OT Reg.(Ont.)

Abstract

**Purpose.** The McMaster Handwriting Assessment Protocol (MHAP) is a tool to assist occupational therapists in assessment of students’ handwriting difficulties. Curriculum changes over the past decade have resulted in less emphasis on handwriting instruction. As a result, the quality of children’s writing may have decreased since the last edition was published in 2009. This project aimed to update the MHAP’s evidence and add handwriting samples and speed norms reflective of children’s current abilities. **Methods.** A literature review was conducted and 236 handwriting samples were collected from 3 schools in Hamilton, Ontario. Representative samples from each grade were selected for inclusion. The association between grade and handwriting speed was examined, as well as gender speed differences. Speed norms are reported using the 25th to 75th percentiles from each grade. **Results.** Handwriting speed was significantly positively correlated with grade for both the dictation and near point copying tasks. Girls wrote significantly faster than boys for the dictation task. No significant difference in writing speed was found between genders for the near point copying task. **Implications.** The 3rd edition of the MHAP includes updated handwriting samples, speed norms and literature to assist occupational therapists in clinical decision-making based on current evidence.

Introduction

Handwriting is an important occupation for school-age children. Difficulty with handwriting is one of the primary reasons for school-based occupational therapy referrals. The MHAP is a tool created to aid occupational therapists in identifying specific areas contributing to handwriting difficulty. The 2nd edition of the MHAP includes handwriting samples from Senior Kindergarten through Grade 6, handwriting speed norms reported from previous literature, and evidence published up to 2008. Since the 2nd edition was created, curriculum changes have resulted in less time devoted to explicit handwriting instruction in elementary school classrooms. It is possible that reduced instruction has led to a decrease in the quality of children’s handwriting. The quality of students’ writing may also be impacted by the increasing use of technology in the classroom. As a result, the aim of this project was to collect samples consistent with children’s current handwriting abilities, contribute new speed norms based on this sample, and update the protocol with the most recent evidence in order to better support therapists’ clinical reasoning. Considering some clinicians work in settings where they do not have access to a typical comparison group (clinics, homes), current samples of typical writing will assist with determining which issues warrant further intervention.

Methods

**Participants.** Participants were children in Senior Kindergarten to Grade 6 (112 boys, 124 girls) from 3 schools with mixed socioeconomic backgrounds, in Hamilton, Ontario. Following ethics approval by the Hamilton-Wentworth Catholic District School Board (HWCDSB), consent forms were sent home for parents as well as assent forms for children in Grades 2 to 6. Of 397 consent forms sent home, 236 students were present on the day of data collection with consent and assent forms signed. The researchers only collected samples from students who displayed their returned consent form on their desk. To maintain anonymity, the researchers did not collect the consent forms and the students did not include their names on the samples.

**Data Collection.** To collect handwriting samples, the research team administered tasks from the 2nd edition of the MHAP to classrooms using a prepared script. The MHAP includes 5 handwriting tasks: writing from memory, timed near point copying, far point copying, timed dictation, and composition. Copying samples for each grade are consistent with Ontario curriculum reading standards. MHAP results are analyzed by content and appearance. The Senior Kindergarten classes did not complete the dictation task, as it was determined to be outside of their curriculum standards. The administrators emphasized that students should write at their typical pace, using their regular paper and writing implements. To collect speed norms, the team provided 1 minute for the dictation task, and 3 minutes for the near point copying task, instructing the students to continue writing until the end of the allotted time.

**Sample Selection and Data Analysis.** To select typical samples from each grade, the researchers categorized samples according to overall legibility as poor, typical, or excellent. Poor and excellent samples were eliminated from further analysis. The research team assessed remaining samples according to appearance and content, and independently selected 3 representative samples for each gender per grade. The team reviewed any differences in selection. Through consensus, final samples were selected for inclusion. Speed norms were analyzed descriptively. Spearman’s rho correlations were calculated to determine the association between grade and writing speed for both the dictation and the near point copying tasks. Independent samples t tests were calculated to compare mean handwriting speed on each task between genders.
**Literature Review.** The 2nd edition included evidence up to 2008, therefore the current review consisted of studies from 2008 to the present examining handwriting in typically developing English-speaking children. The evidence within the protocol was updated and expanded to reflect the current literature.

**Results**

Six handwriting samples were selected from each grade, 3 from each gender, to represent the typical writing in each grade. Speed norms, in letters per minute (LPM), reflect writing speeds between the 25th and 75th percentile from each grade (see Table 1). This method was selected for reporting speed norms since very fast and very slow writers are eliminated, thus outlining a range of typical writing speeds. Results of the Spearman correlation indicated that there was a significant positive association between grade and handwriting speed on the dictation task, \( rs(203)= .670, p< .001 \) as well as the near point task, \( rs(235)= .742, p< .001 \). Results from independent samples \( t \) tests indicated that girls \((M= 53.23 \text{ LPM}, SD= 28.08)\) wrote significantly faster than boys \((M=45.29 \text{ LPM}, SD= 26.18)\), \( t(201)=-2.08, p= .038 \) on the dictation task. For the near point task, there was no significant difference in speed between girls \((M=38.89 \text{ LPM}, SD= 18.74)\) and boys \((M= 36.42, SD= 38.89)\), \( t(233)= -.898, p=.370 \).

<table>
<thead>
<tr>
<th>Grade</th>
<th>Near Point</th>
<th>Dictation</th>
</tr>
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<tbody>
<tr>
<td>Kindergarten</td>
<td>5 – 13</td>
<td>–</td>
</tr>
<tr>
<td>1</td>
<td>13 – 22</td>
<td>9 – 22</td>
</tr>
<tr>
<td>2</td>
<td>22 – 38</td>
<td>20 – 39</td>
</tr>
<tr>
<td>3</td>
<td>37 – 49</td>
<td>37 – 66</td>
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<tr>
<td>4</td>
<td>36 – 55</td>
<td>55 – 74</td>
</tr>
<tr>
<td>5</td>
<td>40 – 66</td>
<td>36 – 72</td>
</tr>
<tr>
<td>6</td>
<td>46 – 76</td>
<td>57 – 87</td>
</tr>
</tbody>
</table>

**Table 1.** 25th to 75th percentile writing speed in letters per minute.

**Discussion**

The purpose of this project was to develop the 3rd edition of the MHAP through review of the literature, collection and analysis of current handwriting samples, and calculation of updated speed norms. Results of data analysis for handwriting speed indicate that speed increases with grade, which is consistent with previous findings. Additionally, based on anecdotal observations, overall trends in the handwriting samples demonstrated differences between genders, in that girls’ writing was typically more legible than boys’ writing, which is also consistent with the literature. However, analyses on gender differences in handwriting speeds yielded mixed results. Significant differences were found in the dictation task, but not the near point task. Previous literature found some gender differences regarding writing speed, but argued that differences may not be large enough to have functional implications. It is possible that the results in the present study are highlighting gender differences in the spatial versus language skills involved in near point copying and dictation, respectively, rather than differences in the physical writing process.

**Limitations.** As the collected handwriting samples were dependent on returned consent forms, it is possible students whose parents did not return consent forms were different from those students whose parents did provide consent (i.e. language barriers, beliefs about research). Additionally, all samples were collected from schools within the same region, which limits the generalizability of the results. Furthermore, some grades had smaller sample sizes than others, or different gender ratios, which may have influenced the results. Many of the classrooms had visible alphabet strips, which may have influenced letter formation and speed.

**Conclusion & Future Directions**

The 3rd edition of the MHAP provides updated evidence and typical samples to facilitate occupational therapists’ clinical reasoning when assessing children’s handwriting. Future revisions to the MHAP should include current atypical samples from Senior Kindergarten through Grade 6. Samples were selected for their ability to represent children’s current handwriting skills; however, the selected samples were not examined in relation to a comparison group. Thus, no definitive conclusions could be drawn regarding the impact of curriculum changes on global handwriting quality. Future research should directly examine the impact of curriculum and handwriting instruction methods on quality of children’s handwriting. Gender differences should continue to be explored in handwriting speed and legibility as well as the components required for handwriting tasks. Additionally, as technology becomes more common in classrooms, future studies should examine the implications for children’s handwriting.

**Acknowledgements**

We would like to thank the HWCDSD and its teachers for allowing us to collect classroom writing samples. We would particularly like to thank Terry Leverty from the HWCDSD for being instrumental in liaising with schools. We would also like to thank parents who consented to their child’s involvement, and to all the students who participated. Lastly, we would like to express our sincere gratitude to our project supervisors, Julia Lockhart and Nancy Pollock, for their guidance and enthusiastic support throughout the entirety of this project.

**References**

**Organized Stroke Care Across Income Levels (OSCAIL): Lessons from Practice**

**Authors:** Mitchell Bewick, Nathaneil Koch, & Christina Morinello

**Supervisors:** Dr. Jackie Bosch, Investigator at Population Health Research Institute, Associate Professor at School of Rehabilitation Science, McMaster University
Leah Hamilton, Research Assistant at Population Health Research Institute

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**ABSTRACT.** OSCAIL is a study focused on implementing key aspects of organized stroke care in international, low to middle income hospitals where it is not present. OSCAIL’s study design consists of observation, training, and intervention phases at primary and matched hospital sites within several low to middle income countries. Educational modules were developed for rehabilitation staff at Kalafong Hospital in South Africa to build off of the in-hospital OSCAIL training workshop, and to discuss methods for effective implementation in routine practice. A needs assessment was then developed as a response to limited training module engagement, and was administered to multidisciplinary staff at hospitals in Butare and Kigali, Rwanda. Results from the needs assessment helped create recommendations for a five-question framework to promote information gathering and communication at multidisciplinary team meetings, therefore helping to address needs in stroke service provision.

**INTRODUCTION**

86% of global deaths from stroke occur in low to middle income countries (LMIC)\(^1\). While the rate of stroke-related mortality is decreasing in high income countries (HIC), in LMIC countries, the rate is increasing\(^1\)\(^4\). Evidence-based interventions, including organized stroke care (OSC) are helping HIC move towards more optimistic outcomes for stroke\(^5\). However, several barriers limit the accessibility of OSC in LMIC, including lack of appropriate transportation to healthcare services, follow-through in government policy, resource equity, awareness of stroke signs and symptoms, prompt referral times, diagnostic imaging, and urgency to come to hospital\(^6\)\(^7\). OSCAIL is an implementation study that aims to effectively implement OSC in LMIC where it is not present\(^8\). The student team joined OSCAIL towards the end of the training phase at Kalafong Hospital in South Africa, and at the start of the training phase at Centre Hospitalier Universitaire de Butare (CHUB), and Centre Hospitalier Universitaire de Kigali (CHUK) in Rwanda. The original role of the student team was to provide ongoing training to rehabilitation staff at Kalafong. However, the role evolved through several phases in accordance with fluctuating project needs. Together, the tasks across each phase ultimately contributed to the understanding of, and response to, an overarching research question asking what practical approaches are needed to facilitate collaboration and communication of a multidisciplinary team (MDT) working towards OSC in LMIC?

**REVIEW OF THE EVIDENCE**

Using the literature involved in OSC, implementation science, and OSCAIL’s objectives, the student team developed an iterative methodology to understand the resources, values, and experiences of healthcare professionals at Kalafong, CHUK and CHUB. OSC uses a geographically defined unit to encapsulate a coordinated MDT with specialized interest in stroke medical and rehabilitation interventions\(^5\). However, significant time, resources, and teamwork are required to implement an organized stroke unit, and there are challenges associated with its implementation in inequitably resourced settings\(^9\). Through the use of implementation strategies\(^10\), the components of OSC may be adapted in order to facilitate success and sustainability in LMIC.

**METHODS**

In Phase I, student responsibilities included following-up OSCAIL in-hospital training at Kalafong, which expanded on key elements of OSC by promoting discussion amongst rehabilitation staff. Using WhatsApp, the student team disseminated a series of mobility training modules, developed based on key stroke interventions\(^8\) and Canadian Stroke Best Practice Guidelines\(^11\). In Phase II, based on feedback from Kalafong staff and site champion, the student team focused their efforts to develop and share a module comparing the National Institutes of Health Stroke Scale (NIHSS) and Barthel Index (BI) via WhatsApp. In Phase III, as CHUK and CHUB entered the training phase of OSCAIL, the student team developed, administered, and analyzed results from a needs assessment to better understand the practice context of 4 physiotherapists (PT), 10 physicians, and 16 nurses in these settings. Needs assessment results were consolidated with input from the CHUK and CHUB site champion, and OSCAIL case report forms (CRF).

**RESULTS AND DISCUSSION**

Phase I and II: The intention of the training modules was to continue building communication within the Kalafong rehabilitation team regarding the elements of OSC, as part of facilitating their implementation into routine practice. However, limited input on the training modules was received. The student team hypothesized several reasons for this limited input, including poor internet connection, understaffing, and the reduced familiarity with multidisciplinary communication, as staff had only recently initiated MDT meetings. Finally, from the few comments that were received, resource limitations were the stated barriers to implementing training elements into routine practice more than lack of knowledge. Therefore, as the intervention phase shifted from Kalafong to CHUK and CHUB, the student team decided there was a need to better understand the practice context prior to developing appropriate and effective training.

Phase III: From the needs assessment, data suggest multidisciplinary communication is undervalued and underutilized at CHUK and CHUB. Overall, there was variation in responses across practices of documentation, team meetings, and assessment sections of the needs assessment. Regarding documentation, three of the four PTs indicated that they perform freehand documentation, while two of four indicated use of a
documentation template (multiple responses were permitted). Physicians and nurses reported using a stroke worksheet (31% of responses) and freehand (31%) as the two most used approaches, followed by using a template (24%), and not performing documentation itself (7%). Information from all stakeholders indicated a lack of standardization with how information was being communicated, which may contribute to more challenging coordination of patient care. Responses from all stakeholders also hinted at a lack of emphasis being placed on MDT meetings to discuss patient care and prepare for discharge. PTs and site champion acknowledged infrequent and sporadic use of MDT meetings. Similarly, data indicated that only 2% of physicians and nurses reported organizing MDT meetings as a way to improve documentation. Combining this information with the fact that a lack of MDT was rated as the fifth-biggest barrier to implementing OSC by physicians and nurses potentially further implies that a decreased level of importance is being placed on this area of OSC. Despite the presence of a MDT policy in CHUK, the data suggests that communication is not being utilized as much as it was proposed.

From the four PTs surveyed, there was mixed report on the assessments used in practice. The Glasgow Coma Scale (GCS) had the greatest amount of responses to suggest its use in practice (75%). However, although the GCS is present on the CRF, input from the Rwanda site champion indicated PTs do not use the GCS in their practice. Similarly, reported use on functional assessments like the Functional Independence Measure (FIM) and Alpha FIM were not consistent with input from the Rwanda site champion, nor was their use reported on the CRFs. Further, the majority of PTs reported interest in learning about each of the previously stated assessments, with the exception of the GCS. Because the original intention of the survey question was to understand the standardized assessments used by PTs at CHUK and CHUB, the disparity in results limit the ability to extract this information accurately from the survey data. The inconsistencies reveal an important finding with regards to the understanding of the purpose of assessment use with stroke patients. Without consistent or established assessment, standardized or not, members of the MDT each have a different perception of stroke patient status, leading to potential variations in intervention approach, or redundancies in interventions provided. However, assessment results may be an important tool in communicating stroke patient status to the MDT efficiently, and may also be used to communicate stroke patient needs to prepare for safe discharge. Therefore, assessment may act as the medium through which each member of the MDT may communicate, document, and understand stroke patient status using common language.

**RECOMMENDATIONS**

Based on the analyzed data, it is recommended that physicians, nurses and PTs at CHUK and CHUB adopt a five-question framework to guide stroke patient information gathering, patient care tracking, and discharge planning across the stroke continuum. The student team developed this five question framework based on the *six simple variable model*, which has predictive qualities regarding functional outcomes in acute stroke. Components were also inspired by the Person, Environment, Occupation Model. The five questions are:

1. How safe is the stroke patient’s feeding and swallowing ability?
2. How does the stroke patient transfer and walk?
3. How does the stroke patient complete activities of daily living?
4. How is the stroke patient’s cognitive and affective functioning?
5. What social supports are the stroke patient upon targeted discharge date?

CHUK is working to implement policy on weekly MDT meetings, but the framework may be an effective technique to give purpose and guidance to multidisciplinary communication for both sites. The framework may also permit MDT members to share results from each discipline’s assessments to create a holistic picture of stroke patients, and a better understanding of each team member’s role. The utilization of a universal documentation template is also recommended. This template could be an adaptation to the OSCAIL stroke worksheet to highlight key aspects of patient care that every staff can understand and contribute towards, including the five key areas outlined by the framework as proposed earlier.

**CONCLUSIONS**

Findings and recommendations from this project encourage a transdisciplinary approach to OSC in Rwanda, as they revealed a variety of perspectives on practice in OSC. The underutilization of multidisciplinary communication meant that challenges were present in coordinating and executing efficient and collaborative efforts in OSC. Therefore, focusing on the MDT as a whole as opposed to individual contributions fosters collaboration and value for multidisciplinary roles. In 2018, the first graduating class of occupational therapists (OTs) in Rwanda will be entering practice as one piece of a larger transdisciplinary puzzle. By incorporating universal approaches to guiding assessment, treatment, and discharge preparation, this encourages equal value is placed among MDT members who may be required to take on nontraditional roles in OSC.

**Acknowledgements.** A special thank you to Dr. Jackie Bosch, Leah Hamilton, the OSCAIL team, Population Health Research Institute, and McMaster University School of Rehabilitation Science for the opportunity and support for this research project.

**REFERENCES**

**ABSTRACT**

**Introduction:** Access to mental health services is inadequate for marginalized individuals. Improving access involves engaging the community to reduce stigma associated with mental illness and address systemic inequities. **Objectives:** Create a model of training and support for local organizations to support community members who may be in distress or wanting mental health services. Evaluate potential for future replication. **Methods:** Designated champions were trained and activated with ongoing support and onsite mentorship. Questionnaires were used at three intervals to measure change in attitudes and awareness of mental illness, community resources, and confidence in supporting individuals in distress. Interaction logs documented use of training and supports. Key informant interviews and questionnaires captured participants’ experiences. **Results:** Five key themes/dilemmas emerged: Champions’ perspectives of Mental Health Safe Space (MHSS) and Champion role; redefining the problem; helping one person at a time; shared understanding, and to act or not to act? Process indicators and training impact/experiences reported elsewhere as project/analysis is ongoing. **Conclusions:** Addressing barriers to access mental health services amongst marginalized community members takes a creative, collaborative approach. As primary care providers, OTs can promote health equity by working with community members to implement neighbourhood models of intervention.

**BACKGROUND**

Social determinants of health, including social exclusion and stigma negatively impact mental health and occupational engagement (Trainor, Pomeroy & Pape, 2004). The target neighbourhood of the Gibson-Landsdale (GALA) area in Hamilton experiences high rates of mental health issues, poverty, and addiction (Buist, 2010), yet its residents are underrepresented in mental health and addictions inpatient and outpatient programs (Kislinksy, Sadler, Wilson, 2015). The ‘New Framework for Support’ (Trainor, Pomeroy & Pape, 2004) emphasized the importance of moving towards a community process (rather than service provision) paradigm in addressing population-based social determinants of health. The MHSS project builds on a training program for local organizations in Tuscon, Arizona by incorporating suggestions from GALA community members (Kislinksy, Sadler, Wilson, 2015).

**RESEARCH QUESTION**

*Can the creation of a network of MHSS’ impact community members’ awareness & relationships with each other, & mental health services?*

**LITERATURE REVIEW**

*What is the effectiveness of stigma reduction programs at reducing stigma of mental illness amongst members of the public?*

Education and contact based interventions both reduced stigma in the short term, with contact based interventions producing slightly greater change (Morgan, Reavley, Ross, Too & Jorm, 2018; Thornicroft et al., 2016; Stuart et al., 2014; Livingston, Cianfrone, Korf-Uzan, & Coniglio, 2014; Dalky, 2012). Long term effects were not measured or not significant (Morgan et al., 2018; Thornicroft et al., 2016; Dalky, 2012). In public anti-stigma campaigns, a dose-effect relationship exists wherein areas targeted by the campaign see greater improvements in attitudes (Evans-Lacko et al., 2014; Hansson, Stjernswärd, & Svensson, 2016; Thornicroft, 2016) and intended behaviours (Hansson, Stjernswärd, & Svensson, 2016). Only one article acknowledged adopting a community development approach (Stuart et al., 2014). Results are limited due to heterogeneity of definitions of approach, methods, and rigor, and due to lack of control groups and focus on moderators.

**METHODS**

**Approach:** Mixed methods program development & evaluation. **Participants:** 82 Owners and Community Champions from 10 organizations completed MHSS training. 2 Community Connectors with Mental Health Peer Support Training were trained to support Champions. **Intervention:** MHSS training challenged preconceptions, addressed crisis response and de-escalation, and provide information on community resources. Community Connectors provided community resources and ongoing support post training. **Data Collection:** Pre-post training & 3-month Safe Space Questionnaires and Open Minds Questionnaires measure training outcomes. Community Champions & Connectors were asked to log interactions with community members and each other. Participant perspectives were gathered by surveys and in 45-60 minute key informant interviews with Owners (n=5), Community Champions (n=10), and Community Connectors (n=2). Community members who accessed services through MHSS were not interviewed. **Data Analysis:** Training experiences, impacts, and process indicators are reported elsewhere and ongoing. Data for the student project emerged from key informant interviews that were coded and analyzed by multiple researchers. An emergent iterative reflexive approach was used to identify and explore key themes and dilemmas across the group.

**RESULTS**
Participants had diverse experiences and perspectives of the MHSS project. Key themes and dilemmas that emerged from key informant interviews are:

**Redefining the problem:** Community Connectors modelled the MHSS concept, allowing Champions to disclose mental illness and challenge fears, embarrassment, and presumptions. Champions described a new understanding of mental illness and the target neighbourhood, where all are seen as people who need to be heard, not fixed. Some sites and participants did not redefine the problem, maintaining an “us and them” approach to helping. **Helping person by person.** Champions reported a sense of responsibility to help. However, many felt daunted by the high needs of the community and the double stigma/challenges of mental illness and poverty. Champions saw the need to practice self care and acknowledge the limitations of their role, but felt they could help by listening and mindfully engaging with individuals within the boundaries of the Champion role. **To act or not to act.** Champions grappled with the concept of mental illness and who is in distress, including whether or not to offer support to someone who may be using substances. Participants also questioned what ‘action’ was, and whether mindful engagement, listening and giving space and time, are acting. Limitations to action included Champion’s own fears and embarrassment, and a lack of resources.

**Shared Understandings.** Participating Champions had diverse experiences and understandings of mental illness and mental health. Some Champions disclosed lived experience and felt that disclosure during training was validating and cathartic. MHSS training allowed those with and without lived experience to gain a shared understanding of mental illness and the skills necessary to offer appropriate help. **Champions’ conceptions of MHSS.** Champions had diverse ideas about the meaning of a MHSS. Not all individuals and sites embodied the MHSS concepts, but those who did felt that commitment was required at organizational, network, and individual levels and the following concepts were made a priority in the context of daily work:

- The need for assistance and support is acknowledged. Barriers to accessing help, including stigma, are reduced.
- Dignity is upheld - it is safe to disclose mental illness. Concept of mental illness is normalized, & all are treated as human beings.
- Proactive health promotion strategies, intentional helping and mindful engagement are practiced. Resources are allocated to support these practices.
- Exists within a community network facing similar issues. Provides support for other organizations & a safety net for community members.

**DISCUSSION**

- MHSS training can impact knowledge, attitudes, and responses to mental health/illness
- Ongoing support and mentorship facilitated implementation of training, discussions, and further translation into organizations
- Community members in this neighbourhood are eager to learn & support one another
- Delivery by persons with lived experience supported MHSS success
- Implementation was greater when managers championed MHSS into organizations

Community members who sought services through this project were unavailable for interviews, but future research should consider the perspectives of these stakeholders when possible.

**ACKNOWLEDGEMENTS**

Thank you Susan Strong, supervisor; Fiona Wilson, Claire Kislinsky, and Val Sadler for inviting us to be part of this initiative; Community Connectors Sarah Moir and Bonnie Weeks; participating Champions & MHSS sites & the neighbourhood of Gibson-Lansdale, Hamilton, ON. Ontario Trillium Foundation, St. Joseph’s Healthcare Hamilton and Mission Services Hamilton provided the resources & funding that made this project possible.

**REFERENCES**


Abstract

Background: Using a quality improvement (QI) approach, the intake process at McMaster Student Accessibility Services (SAS) is analyzed to understand how accommodations are formed. Purpose: The aim of this project is to improve the clinical utility of the student self-assessment form used to determine academic accommodations. Methods: A focus group and online survey were initially conducted with SAS advisors to identify the aim of this project. An environmental scan of Ontario post-secondary institutions was completed to examine their intake processes and student self-assessment forms. Results: Analysis of data from the focus group and online survey revealed the importance of having a student self-assessment form which included history of accommodations, functional limitations, current strategies, and program requirements. The findings of the environmental scan demonstrated that 13 of the 24 postsecondary institutions used a student self-assessment in their intake process. Coding using the International Classification of Functioning, Disability, and Health (ICF) revealed a large variation amongst these forms in terms of the types of questions asked. Conclusion: Recommendations and an updated student self-assessment template were provided to McMaster SAS based on collected results. Future research should involve pilot testing this template and incorporating student perspectives.

Introduction

In 2016, the Ontario Human Rights Commission (OHRC) informed all publicly funded Ontario post-secondary institutions that a diagnosis of mental health disabilities cannot be required in order to provide accommodations for students with disabilities (OHRC, 2017). Instead, accommodations must be determined on the basis of ‘good faith’ and functional impairment in the academic environment arising from disability (OHRC, 2017). Although specific to mental health diagnoses, this precedent setting ruling caused Ontario post-secondary institutions to re-evaluate their intake processes and documentation. McMaster’s Student Accessibility Services (SAS) serves between 1,600-1,800 students yearly. A quality improvement (QI) approach was selected to identify challenges in the formation of accommodations within SAS and to develop and test new approaches to improve this process. The specific aim of this project was to improve the clinical utility of the student self-assessment form completed in the intake package provided by McMaster SAS.

Literature Review

The OHRC considers academic accommodations as one of the most important aspects to providing equal access to education for students with disabilities (OHRC, 2017). In Canada, there are currently no specific legislative guidelines set forth in relation to the provision of academic accommodations at the post-secondary level (Roberts, 2013). Literature on forming accommodations emphasizes the need to consider the interaction between the accommodation and the student, their environment, and academic tasks (Roberts, 2013). The concept of functional limitation emerges frequently in the literature. This is defined as the restriction of participation in activities due to physical or mental impairments (Roberts, 2013). The documentation completed by the health care provider is meant to provide the disability advisor with an understanding of this. The best practice framework developed by the Association on Higher Education and Disability (AHEAD) in the United States emphasizes the use of student self-report as primary documentation followed by interviews with students, and healthcare provider documentation (Lovett, Nelson, & Lindstrom, 2015).

Methods

The theoretical framework informing this project is the World Health Organization’s International Classification of Functioning, Disability, and Health (ICF) based on its emphasis on functioning and the applicability of this tool among a variety of professions (World Health Organization, 2002). The aim of this QI project was developed through use of a focus group with SAS advisors followed by an online survey. Topics discussed included current practices used to develop accommodations, current challenges, and ideas to improve the intake process.

After the project aim was identified, the Plan-Do-Study-Act (PDSA) cycle was used to inform next steps (Health Quality Ontario, 2012). An environmental scan of Ontario post-secondary institutions was conducted to understand intake processes and use of a student self-assessment form. A total of 24 public institutions were studied in the environmental scan, including 18 universities and six colleges. The website of each institution’s accessibility department was examined in order to understand their intake process and review their documentation. Emails were then sent to SAS contact persons from each institution to gain clarification on their specific intake process. Responses were received from 12 institutions. Items on the student self-assessment forms retrieved were coded using ICF and recommendations on
the intake process and an updated student self-assessment form were created.

Results

Developing Project Aim: Focus group and online survey with SAS advisors revealed that the student self-assessment form provides helpful information in forming accommodations but that it is not often filled out. Reasons for this identified by the staff include: the open-ended nature of the form, lack of examples, it is too components-based, a high level of insight is required by the student to complete the form, and that it may not be appropriate for all disabilities. When asked what the form should include, advisors suggested: impact of current symptoms on their studies, functional limitations, program requirements, accommodation requests, current strategies to address academic challenges, and a history of disability and past accommodations. Other suggestions included using checkboxes rather than open-ended questions for students with typing and writing challenges and providing examples of the categories and/or changing language to assess academic components. Overall, the form should be short and easy to complete.

Environmental Scan: The focus of the environmental scan was to explore and understand the intake process of various institutions and to determine if and how student self-assessments are incorporated into the documentation process at other Ontario postsecondary institutions. Common challenges identified by these departments include the following: high volume of requests, limited resources and staffing, incongruence between medical documentation and student’s functional limitation. Helpful aspects of the intake process were reported as follows: online intake, developmental and strengths-based approach, emphasis on verbal student self-report, history of accommodations and functional limitations. 13 of the 24 post-secondary institutions in the environmental scan currently utilize a student questionnaire/self-assessment. Of the three major ICF categories coded: 85% of the forms inquired about the impairments of body functions, 77% inquired about the impairments of body structure, 85% inquired about activity limitations and participation, and 100% inquired about environmental factors.

Discussion

The challenges identified by the SAS advisors were consistent with the findings of Harrison and colleagues (2008) which indicated that students are not adequately completing documentation when seeking accommodations. As identified in the literature review, it was important for the student questionnaire to consider the interaction between the accommodation and the student, their environment, and academic tasks (Roberts, 2013). The form recognizes the challenges with self-report highlighted by Barnard-Bak et al. (2009) who argued that the onus for establishing accommodations is on students after entering postsecondary school rather than parents or professionals. The ICF coded results of the environmental scan helped inform the questions for the revised student self-assessment template created. Based on the results mentioned above and the literature, the form incorporated the following recommendations: (1) a strengths-based approach, 2) use of Person-Environment-Occupation framework (Law et al., 1996) in question formation, (3) provision of examples and options to facilitate insight and advocacy skills, (4) understanding of supports and services to inform referral options, (5) submission of form online prior to intake.

Conclusion and Future Directions

Overall, this project revealed the complexities and importance of the individualized nature of the intake process to develop accommodations. Recommendations provided to McMaster’s SAS to improve the clinical utility of the form are aimed to improve efficiency and development of appropriate accommodation formation. Limitations: Due to the short time frame of this project and logistical challenges, only the initial stages of the PDSA cycle were implemented. Methods to continue with the PDSA cycle were provided to SAS staff. Due to the QI approach taken, results of this study are not generalizable to other practice settings. Additionally, the emphasis of this project was on the content and clinical utility of the form rather than the reliability and validity of the questionnaire. Next steps should involve testing of these components along with student perspectives on clinical utility of the form.

Acknowledgements

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References

Abstract: Purpose: To clarify and demystify the role of occupational therapy (OT) in the Ontario auto insurance sector by identifying common injuries, recommendations, and trends between these variables following initial assessment. Methods: A retrospective chart review was conducted of 205 OT functional assessments following a motor vehicle collision (MVC). Demographics, injuries, and recommendations for occupational therapy interventions, attendant care (AC), and assistive devices were extracted. Descriptive data, including central tendencies and measures of frequency and dispersion were analyzed using Microsoft Excel. Results: Most common injuries reported were musculoskeletal injury and/or pain (86%), orthopedic injuries (52%), and brain injury (49%). 83% of assessments reported multiple injuries. The most common intervention recommendations included education (95%); referral facilitation (59%), cognitive strategies (57%), practice and re-education of activities of daily living (ADL; 34%), and psychological treatment (30%). 94% of cases had more than one intervention recommendation. 91% of cases received AC recommendations. The average dollar amount recommended for AC was $3565, the median was $1733. Assistive devices were recommended in 91% of cases. The average dollar amount for devices was $757.46, and median $397.94. The average number of months between date of accident/loss (DOL) and in-home assessment (IHA) was 11 months with a median of 5 months. The average number of OT treatment sessions recommended following assessment was 6; with an average duration of 12 weeks. Conclusion: This study aids in clarifying the OT role in Ontario’s auto insurance sector by identifying common trends and variances in OT assessment recommendations. It demonstrates the importance of an individualized OT approach to client assessment and treatment recommendations. Occupational Therapists play a key role in rehabilitation following a MVC by providing a variety of interventions including education, cognitive strategies and ADL practice, as well as facilitating referrals and providing recommendations for AC and devices.

Introduction

Occupational Therapists have a valued role in Ontario’s auto insurance sector. In this, Occupational Therapist’s are hired by third party payers (i.e. lawyer or insurer) to either provide services (including assessment and treatment) or to conduct Insurance Examinations (assessment only). Assessments evaluate the impact of MVC injuries on ADLs and are used to provide recommendations for treatment, care and assistance. OT treatment plans are designed to support clients in maximizing their occupational performance and in returning to pre-accident function in all areas of life. Despite a large number of Occupational Therapists working in this sector (>1000 in Ontario), current literature in this area is limited and does not provide a comprehensive understanding of the OT role. This study aims to showcase common OT treatment recommendations to clarify and demystify this role for others looking to enter or work in this sector.

Literature Review

Available literature on the OT role in the auto insurance sector reveals the challenges that Occupational Therapists face in this area of practice. Conflicts of interests may arise between stakeholders and clients. OT reports are restrained by legislation and policies that are constantly changing. This is further complicated by variability in regional regulations.

Literature on standards of practice was limited to an Australian clinical framework for the delivery of health services that is applicable for Occupational Therapists working in auto insurance. It consists of five principles: “Measure and demonstrate the effectiveness of treatment, adopt a biopsychosocial approach, empower the injured person to manage their injury, implement goals focused on optimizing function, participation and return to work, and base treatment on the best available research evidence.”

Methods

A retrospective chart review was conducted from 205 IHAs following MVC. Convenience sampling was utilized from one private OT company, Solutions for Living by Entwistle Power Occupational Therapy. Charts for clients under the ages of 18 at the DOL were excluded. Incomplete IHAs were also excluded. 100 reviews were provided by the company, with data from the remaining 105 collected by 2 reviewers on standardized electronic forms. All 205 were analyzed by the same reviewers. To ensure data collection consistency the reviewers examined and tested 10 completed files, then collected data from 15 charts concurrently. Data extracted included age, gender, injury, DOL, date of assessment (DOA), and recommendations for occupational therapy interventions.
AC and assistive devices. Personal identifiers were removed and anonymized with numerical identifiers. Statistical analysis was carried out by the reviewers. Descriptive data was analyzed in Microsoft Excel. Measures of frequency, central tendencies, and measures of dispersion were identified for demographics, injuries, time between DOL and DOA, and recommendations to identify trends. Conclusions were identified in consultation with an expert in the field, Julie Entwistle.

Results

The retrospective chart revealed information about the landscape of OT within Ontario’s auto insurance sector. The sample had a fairly equal distribution of males (54%) and females (46%). Injuries reported were: musculoskeletal injury and/or pain (86%), orthopedic injuries (52%), brain injury (49%), psychological injuries (26%), spinal cord injury (5%). Common injuries identified were similar to those reported in available literature. 11% of charts indicated other types of injuries, such as stroke, temporary vocal cord paralysis, internal bleeding, and punctured organs, resultant of complications following MVC. Most cases had multiple injuries (83%); pain being the most common co-injury (82-95%). The most common intervention recommendations included education (95%); referral facilitation (59%), cognitive strategies (57%), ADL practice and re-education (34%), and psychological treatment (30%). Less frequent recommendations following initial assessment included re-engagement in leisure, mobility, use of support personnel such as occupational therapy assistants, and return to work or school. 94% of cases had more than one intervention recommendation, with the average being 4 (SD: 1.5). Education in the form of energy conservation strategies, pain education, sleep hygiene, and appropriate use of assistive devices, is consistent with best practice guidelines in the management of pain and brain injury. This explains the use of education as primary intervention. Additionally, the most common injuries of pain and orthopedic injuries aligns with the intervention of education, similar to brain injury and cognitive interventions. AC was recommended in 91% of cases. The average dollar amount recommended for AC was $3565, the median was $1733, and the range was between $0 and $10,544. A trend was identified between number of injuries and AC recommendations; the amount of AC recommended increased with the number of injuries. 91% of cases received device recommendations. The dollar amount for devices ranged from $0 to $5670, the average was $757, and median $399. The number of months between DOL and DOA was an average of 11 with a median of 5. The dollar amount for device recommendations slightly increased with the number of months between DOL and DOA; rising from $710 at 1 to 5 months to $1,050 when >25 months. The number of months between DOL and IHA did not demonstrate trends with other variables. Lastly, the average number of OT treatment sessions and duration of treatment was 6 and 12 weeks, respectively. Injury was not predictive of OT sessions or duration recommended.

Conclusion

The chart review outlined typical injuries, common intervention recommendations (type, number of sessions, and duration), and recommendations for AC and devices following IHA. Although there is some uniformity in recommendations following initial assessment, the wide range of interventions, assistive devices, and amount of AC indicate the customization provided for each individual client. This is further emphasized by the lack of clear trends between demographics, type of injury and recommendations. Limitations: The data was collected from one private OT company and may not generalize to other practices. Therefore, further research including multiple OT practices involved in Ontario’s auto insurance sector is advised. This study illuminates OT recommendations following initial assessment. Additional work is needed to identify approval rates following assessment to gain a clearer picture of the insurer’s support of OT recommendations.

Acknowledgements

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References

Symposium Summary: Exploring care providers experiences with a shared care model in mental health
Authors: Tanya Gabriele, Shannon Knutson, Andrea Lindsay, Niagara Health

Abstract: Background: A shared care model (SCM) was piloted to transition individuals with chronic mental illness from hospital inpatient unit into the community. Methods: A phenomenological study utilizing 2 focus groups (n = 19) has been conducted with care providers to understand their experiences with the SCM, as well as elements essential to this approach. Preliminary Findings: Three main themes were elucidated from the data: Our Everyday Story; Filling in the Gaps with a Shared Care Approach; and Moving beyond the SCM, focusing on community possibilities. Future Directions: Further interpretation of the data is required, as well as recommendations for next steps and future implementation.

Introduction: Individuals living with chronic mental illness experience longer hospital stays and difficulties in long-term care (LTC) placement, due to complex health needs and behavioural concerns. Niagara Health occupational therapist Andrea Lindsay introduced a shared care model as an innovative alternative to care in supporting patient transitions from inpatient mental health to LTC. As an OT, Andrea recognized the breakdowns in transition planning and identified core elements required to support patients and LTC homes. Andrea utilized a PEO lens to design a process inclusive of the patient's unique needs, various layers of the environment, and their influences on one another. The model was piloted on a Specialized MH unit with 25 persons and LTC homes between February 2016-February 2018. While metrics including length of stay, subsequent emergency department visits and re-admissions have been tracked to evaluate the model, this study explores the perceptions and experiences of the service providers who have been involved in these transitions. This research aims to answer the following questions: 1) How do healthcare professionals perceive the impact of the shared care model on admissions of residents with chronic mental illness to LTC?; 2) What are the elements of the shared care model healthcare professionals feel are essential? These insights can generate a deeper understanding of the potential supports and challenges to sustaining this practice innovation and yield recommendations to successfully implement the model in the future.

Literature Review: In the last decade, the term ‘shared care’ has emerged in health care for persons with chronic mental illness. Shared care describes a model of collaborations between primary care service providers, typically family physicians, and the multidisciplinary teams based in specialized inpatient mental health services. With a shared care approach, communication increased and persons transitioning back into the community were better supported, which resulted in decreased symptoms and improved long-term function.

Methods: Design A qualitative phenomenological study was conducted with staff of Niagara Health (St. Catharines site) and 6 long-term care homes in the Niagara region. A phenomenological study is an appropriate design to understand and explore shared experience. Sample: 19 participants were recruited using purposeful sampling, via email. One participant was male, and the remaining were female. Professions represented included: social work, occupational therapist assistant, director of care, nursing, psychiatry, administration, and discharge planning. Data Collection: Ethics approval was received from the Hamilton Integrated Research Ethics. Two focus groups were conducted on the same day, with 10 participants in the morning and 9 in the afternoon. Informed consent was received from each participant prior to commencement, and each session lasted one hour. Open-ended questions were used to guide discussion. The discussions were audio-recorded. Data Analysis: Each student researcher transcribed one of the focus groups verbatim. Preliminary analysis was conducted independently by each researcher for each focus group. Both student researchers independently completed coding and categorization of the
Symposium Summary: Exploring care providers experiences with a shared care model in mental health

Authors: Tanya Gabriele, Shannon Knutson, Andrea Lindsay, Niagara Health

data, and developed provisional theme headings. Student researchers then came together to consolidate themes.

Acknowledgements: Andrea Lindsay for the opportunity; Staff at Niagara Health and LTC homes in Niagara region for their focus group participation; Tara Packham for her guidance and support.

Preliminary findings: At this point we have completed preliminary data analysis, revealing three major themes with subthemes.

Theme 1: Our everyday story. Sub theme 1: Flagging mental illness and refusing admission requests; Sub theme 2: Looking for resources that aren’t there; Sub theme 3: Feeling dumped on from both sides Sub theme 4: Wheels are falling off and there’s nowhere to turn
This theme highlights the everyday reality and experiences of LTC staff. It addresses their perceptions of accepting someone with mental illness and the resulting stigma and generalizations that have been made based on previous experiences. This theme also highlights the many resources pulls and lack of support felt in caring for individuals with mental illness in LTC, as there is limited staffing, knowledge of mental illness, and few community resources available. This theme sets the stage and substantiates the need for a shared care approach in mental health care.

Theme 2: Filling in the gaps with a shared care approach. Sub theme 1: Building a whole picture of a person; Sub theme 2: Access to ongoing communication; Sub theme 3: Maintaining continuity of care through partnerships and trust
This theme illustrates essential elements of the shared care model that worked to support transitions during a pilot project that was completed between Niagara Health and LTC homes in the Niagara region.

Theme 3: Moving beyond the SCM, focusing on community possibilities
After the pilot study, it became evident that supports for transitions from hospital into LTC need to extend beyond these partnerships to include the greater community. For transitions to be successful, the importance of capacity building and leveraging community resources was apparent. A systems level approach is recommended to ensure individuals living with chronic mental illness experience continuity in care and maintain well-being.

Future directions: Further interpretation of the data is required. Findings will be consolidated by drawing links to the SCM algorithm, existing literature, and occupational therapy theory. Recommendations will be provided based on the major findings and to inform next steps for future implementations of the SCM.

References
INTRODUCTION

Clients and families living with schizophrenia are insufficiently involved in the care process and lack supports for community living. Core features of schizophrenia, including poor insight and negative symptoms, continue despite use of medications and education. For many clients, this results in disengagement from services, medication nonadherence, and increases in relapses and rehospitalisations. Further, families and clinicians are challenged in building relationships with someone who, as a result of the condition itself, may not believe they have an illness. Self-management (SM) support is advocated as a feasible, effective intervention for building capacity within individuals and their families to actively manage the impact of illness and live fuller, healthier lives. SM support is about assisting people to proactively manage their health by coaching goal-setting and problem-solving through problems or concerns identified by clients. The client-clinician relationship is a collaborative, negotiated partnership that focuses on the whole person of the client and the life challenges clients are experiencing. Many questions remain about how best to deliver SM.

At St. Joseph’s Schizophrenia & Community Integration Service (SCIS), a model of SM support (SET for Health) was introduced and is part of a 2-year mixed methods feasibility study examining the integration of SET for Health into existing outpatient case management services. The model was translated into procedures and facilitation tools for clinicians to use their clinical reasoning to support clients’ achievement of their SM goals. How clinicians choose to implement SET for Health was expected to evolve over the development of the study. The purpose of this student pilot project was to (a) describe how clinicians are currently implementing SET for Health in routine practice; (b) create a method of documenting practice based on audits and clinician interviews; and (c) highlight emerging practice patterns.

METHODS

A program evaluation framework was used to gain an understanding of the practices and clinician reflections and how to document implementation of SET for Health.

Participants

Using convenience sampling, five of ten participating clinicians volunteered: two occupational therapists, two registered nurses, and one social worker from either the Schizophrenia Outpatient Clinic (SOC) (n=3) or the Transitional Outpatient Program of Schizophrenia Service (TOPSS) (n=2). The sample of three women and two men worked in mental health for 2-18 years. Clinicians participated in bi-weekly SM education/support sessions since September 2017.

Data Collection

Data collection began with the author, supervisor, and co-investigator jointly conducting casebook audits. Progress notes were reviewed chronologically beginning month prior to the date of study entry noting any evidence of building SM capacity and use of facilitation tools. Findings were reviewed with the adapted fidelity measure. The process of using facilitation tools with clients were mapped out in order of events and use. To gain an understanding of decision making and fill in audit documentation gaps, interviews were conducted (30-60 minutes audio recorded) using a semi-structured interview guide co-developed by author and supervisor. Reviewing a selected casebook audit that clinicians felt best represented current practice, together with the interviews, the author developed flowcharts using Visio software depicting each clinicians’ application
process, decision making and general reflections of the tools for one client.

**Data Analysis**
In accordance with the study’s exploratory nature, an emergent iterative reflexive approach was utilized to identify themes from the data. While reviewing flowcharts, the author began identifying how decisions were made, responses to actions and reflections on each facilitation tool. Then, author and supervisor reflected on the extent clinicians’ practices were demonstrating a coaching model while searching iteratively for (not) supporting evidence in the data. Challenges/dilemmas impacting the implementation were noted.

**RESULTS**
Themes were identified related to how decisions were made (drivers) and dilemmas/challenges that impacted implementation. Clinicians’ reported comments of facilitation tools were synthesized into four categories.

**Clinician Reflections of Tools.**
*Preferred Alternative Tool.* Some clinicians expressed personal preference for using other tools historically part of practice and not part of the study to replace a tool.

*Past Positive or Negative Experiences.* Some tools were introduced to clinicians while developing procedures to this study. Past experience with tools influenced decisions in using them again.

*Purpose for Using.* Clinicians may select one tool over another depending on whether the priority is risk management versus client capacity building at that time.

*Utility.* Some tools were considered to be more versatile, flexible, and/or comprehensive than others.

**Decision Drivers.** Three sub-themes emerged in how decisions were being made by participating clinicians.

*Driven by Study Procedures.* Some facilitation tools were used in a set order based on the visual guide of procedures and facilitation tools. Reasons include the clinician: (a) was unfamiliar with approach and followed the guide for structure; (b) preferred their own historical practice and selected tools for the sake of the study; (c) earlier used SM tools deemed helpful to client and selected remaining tools to trial their use.

*Driven by Clinical Reasoning.* Clinicians selected tools for reasons including: (a) the tool may help the clinician gain a new perspective about the client; (b) the clinician wanted to follow up on a suspected gap, strength, or need; (c) the tool may provide direction for care.

*Driven by Client Concerns/Goals.* For some clinicians, tools were selected based on client-identified motives including: (a) client expressed health concerns; (b) client wanted to further work on identified goals; (c) client expressed interest in/requested a tool.

**Tensions/Challenges.** Challenges were noted to better understand the context of the underlying influences. Clients with expectations and historical roles of coming to the clinic to receive medications had decreased ‘buy-in’, yet in a SM approach, the sessions are client directed on the breadth of life challenges. Facilitation for clients with cognitive and/or social disabilities, and substance use required sophisticated clinician skill sets. Staff turnover was disruptive. Difficulties were highlighted when clinicians struggled with issues of control in the context of risk management. Decreased ‘buy-in’ and infrequent visits negatively impacted momentum with goal setting. Implementation of a new electronic documentation system impacted consistency and paused study for two months.

**DISCUSSION**
Following analysis, four summary reflections emerged:

1) SM can continue through a crisis or disruption in care. While a focus on active growth, experimentation, and use of tools with a client may not be as feasible, support is still possible through use of wellness strategies, CBT for understanding experiences, and maintenance of goals.

2) Clinicians can be flexible and creative with facilitation tools by supplementing with mind maps, videos, calendars, or anything else that may help a client draw connections to their goals and wellness.

3) Clinicians supporting client participation in meaningful decisions and actions increases client engagement.

4) Clinicians need to value a SM approach to take action and effectively participate with their clients.

**LIMITATIONS & CONCLUSION**
Study was limited by collecting data on half of the available clinicians and one client per clinician, which queries representation and decreases transferability. Although member checking was not possible for final flowcharts, interviewers were presented with a skeleton flowchart and provided comments.

As expected, SET for Health will evolve and the findings from this project have highlighted potential strengths and barriers in using SM with clients. Findings from this study may inform staff education sessions and study procedures.

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**REFERENCES**
Validity and Responsiveness of the Canadian Occupational Performance Measure in Persons with Chronic Pain in Primary Care

Authors: Kestrel Woodley & Rebekah Winter, MSc. OT Candidates 2018
Supervisors: Martha Bauer & Colleen O’Neill, OT Reg. (Ont.)

ABSTRACT

PURPOSE: This study aimed to determine the validity and responsiveness of the Canadian Occupational Performance Measure (COPM) in a chronic pain group within a primary care setting. Previous literature has demonstrated the COPM is a valid tool to use in chronic pain, in chronic pain groups, and in primary care; however, it has not been validated with all of these factors considered simultaneously.

METHODS: Construct validity was calculated using Spearman’s r coefficient to compare changes in the COPM scores to changes in the Brief Pain Inventory (BPI). Responsiveness was calculated using Cohen’s d to determine effect size for the COPM and BPI. Common areas of function identified by patients as important were determined using a frequency table.

RESULTS: Construct Validity: A moderate correlation found between the COPM-P and BPI scores (r=0.51).
Responsiveness: A small negative effect was found between pre- and post-BPI scores (d= -0.44), and a large effect was found between pre- and post-COPM-P scores (d=0.95). Areas of Function: Fitness, sleep and leisure were important occupational issues identified by patients.

CONCLUSION: This research provides preliminary data that the COPM is a valid and responsive tool to use in a primary care setting with a chronic pain population. Further research is required with more participants to further confirm these preliminary results and to provide greater generalizability.

INTRODUCTION

In Canada, chronic pain is estimated to impact 19% of adults [1]. Available literature suggests the experience of chronic pain can greatly impact one’s occupations [2]. In response to the impact pain has on occupation, chronic pain groups frequently promote engagement in everyday activities despite the experience of pain [2].

The COPM is an assessment tool commonly used by occupational therapists (OTs) in a variety of practice settings [3]. The purpose of the COPM is to measure change in participants’ performance and engagement of occupations identified as important to them [3]. The COPM has two subscales, measuring occupational performance (COPM-P) and satisfaction (COPM-S) with one’s occupational performance or engagement [3]. The COPM has been validated in populations with chronic pain and has been used to evaluate chronic pain groups [2,4]. The COPM has also been validated in primary care [5].

The BPI is an assessment tool frequently used with populations who have chronic pain. The BPI measures the severity of one’s pain experience in addition to how much the experienced pain interferes with daily activities; pain interference items have specifically been recommended for use as an outcome measure for pain-related functional impairment [6,7].

The COPM has been validated against several tools to measure pain including the BPI; however, no available research has validated the COPM against the BPI in a chronic pain group within a primary care setting [4]. The purpose of this study was to examine the utility of the COPM within a chronic pain program in a primary healthcare setting.

METHODS

This research project was a retrospective clinical measurement study using data from patients attending a nine-week multidisciplinary chronic pain program at two clinics of McMaster Family Health Team in Ontario, Canada. Ethics approval was received from Hamilton Integrated Research Ethics Board in February 2018. Three research questions were identified for this study. The primary research question was: Is the COPM a valid measure for use in a primary care setting when measuring change in function in a chronic pain population? The associated hypothesis was: there will be a small, but significant positive change in function scores on the COPM that will correlate with reduced interference scores on the BPI. The first secondary question was: Is the COPM responsive to change when compared to the BPI? The associated hypothesis was: results will indicate that patient changes were small, but measurable, in both BPI and COPM scores after pain group participation. The final hypothesis was: What areas of function are identified to be important by attendees of the pain management group? The associated hypothesis was: there will be common areas of functional change identified by group attendees.

Data were extracted from medical charts for 16 patients who attended three recent cycles of the program, although only 12 were analyzed due to incomplete data. Patients’ initial and final COPM-P and COPM-S scores, BPI scores, and self-report on activity engagement were collected. Change scores between initial and final COPM and BPI scores were calculated and input into PSPP. For the primary research question, Spearman’s correlation coefficients (r) were calculated to identify the strength of correlation between the COPM and BPI change scores. Cohen’s d, an effect size measure, was
used to identify the amount of change from before and after the program. In identifying important areas of function, a frequency table was used to tally areas of interest for group members.

### RESULTS

**Construct Validity:** The first research hypothesis was supported as there was a moderate correlation found between the COPM-P and BPI scores ($r=0.51$). This correlation was determined by calculating Spearman’s coefficient ($r$) to compare COPM-P and BPI scores. **Responsiveness:** The second research hypothesis was addressed by calculating effect sizes for the BPI and the COPM-P. A small negative effect was found between pre- and post-BPI scores ($d=-0.44$), and a large effect was found between pre- and post-COPM-P scores ($d=0.95$). These scores are somewhat consistent with the second hypothesis. While each tool demonstrated a significant effect size, the strength of the effect size differed between the two tools with the COPM-P demonstrating a greater effect than the BPI. **Identified Areas of Function:** The third research hypothesis was supported because there were common areas of occupational issues identified by participants on the COPM. Fitness activities, leisure, and sleep were the three most common areas of important occupational issues identified by participants.

### DISCUSSION

The preliminary construct validity findings within this study suggest similar information is captured within the COPM and BPI when used for patients with chronic pain. Since the BPI is validated for use in chronic pain populations [6], this result further supports the hypothesis that the COPM is also a valid tool for use with chronic pain. Since the COPM and BPI both demonstrate an effect when used as outcome measures for a chronic pain group, it can be interpreted that the tools are both responsive to change. As the COPM effect size is larger than the BPI, it suggests that the COPM captures a greater amount of change following completion of a chronic pain program. This result may be attributed to the individual nature of the COPM; patients identify what difficulties they have that are meaningful to them, while the BPI is a specific set of functional difficulties which may not apply to every patient. The results of this study address the previously identified areas in the literature which are lacking research. Three areas of function commonly identified by group participants as issues were fitness, leisure, and sleep. This information is useful for OTs running chronic pain programs, as these areas of difficulty may require greater focus in the program moving forward. **Limitations:** Generalizability of the results is limited, as the sample size was small and there were limitations in the rigour of the study. Since the study examined data from a retrospective chart review, the inclusion of patients was broad and pre-screening was not utilized. As such, the results of this study should be interpreted with these limitations considered.

### CONCLUSION / FUTURE DIRECTIONS

This research provides preliminary data that the COPM is a valid and responsive tool to use in a primary care group setting with a chronic pain population. OTs may consider using the COPM in this specific practice setting. Continued analysis of the data from future sessions of this chronic pain group is recommended to further confirm the preliminary results in this study. To increase generalizability, results from chronic pain groups in primary care across Ontario would extend the application of these tools in chronic pain.

### ACKNOWLEDGEMENTS

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### REFERENCES

Introduction: The VISION Cardiac Surgery is a large prospective study with individuals undergoing cardiac surgery. Its primary goal is to evaluate the cardiovascular risk of surgery. While there has been some research focused on functional outcomes post cardiac surgery, there are no large cohort studies evaluating the relationship. A part of the study, called the Validation of the Standardized Assessment of Global function in the Elderly (SAGE) in the Adult Cardiac Population is interested in utilizing a new scale for the comprehensive measurement of global functioning, called the SAGE. It will be used to assess the perceived functional performance of individuals after cardiac surgery. The SAGE validation study as part of VISION is assessing various psychometric properties of the SAGE.

The present study investigates construct validity and concurrent criterion validity of the assessment. As the SAGE is a measure of global functioning, it is compared to the World Health Organization Disability Assessment Schedule 2.0 (WHODAS), a commonly used measure of self-reported global functioning among patients with various health conditions to determine construct validity. One of the criterion of the SAGE is mobility, so the SAGE mobility score and total score it is compared to the Timed Up and Go (TUG) test, an established objective measure of mobility. It is important to note whether the SAGE captures functional mobility status as deteriorating balance in older adults is associated with functional decline. Screening for functional changes allows for appropriate provision of supports.

The aim of this study is to identify whether the SAGE can capture the functional and mobility status of individuals post cardiac surgery as is relevant to meaningful participation in day-to-day activities. The study asks whether the SAGE can be used as a screening tool in clinical practice with the cardiac population instead of the WHODAS and the TUG.

Methods: A total of 133 participants were eligible for an in-home functional assessment. Of these, 59 in-home assessments were completed in 2017. The main outcome measures include the following assessment tools: SAGE, 12-item WHODAS and TUG test. The SAGE was compared to the 12-item WHODAS and the TUG using the Pearson correlation coefficient, while the mobility part of the SAGE was independently compared to the scores of the TUG using a χ² analysis to determine a relationship between the two assessment tools.
Our hypotheses include: (1) the SAGE and the WHODAS will show a strong positive correlation; (2) the SAGE and the TUG will indicate a moderate positive correlation; (3) mobility item on SAGE and TUG will be in accordance.

Results: A total of 20 assessments were completed, and a total of 79 participants’ results were used for analysis. There was a strong correlation between the 12-item WHODAS and the SAGE (r=0.85) and moderate correlation between the TUG and the SAGE (r=0.47). SAGE mobility and the TUG were not in accordance ($\chi^2=0.205$).

Discussion: In our population of community-dwelling persons post-cardiac surgery, the SAGE appears to be a practical, valid screening tool of global functioning. It is quick and easy to administer, and requires no special equipment or training. It captures a subjective point of view on global functioning which can be valuable information when screening for possible impairments in function. Preliminary evidence suggests the SAGE correlates strongly with the WHODAS, demonstrating strong construct validity. However, the use of assistive devices is not directly captured in the WHODAS but the SAGE allows for its inclusion through the questions asked. The latter will present clinicians with a more complete picture of the individual’s functional status and starting point for future recommendations of support.

As a test of physical mobility, the time score on the TUG correlated positively with the overall functional performance as indicated by scores on the SAGE. However, the statistical analysis for the SAGE mobility score and TUG score suggests that the two assessments are not measuring the same components of mobility.

Limitations: Generalizability to the cardiac population is impacted by small sample size, high non-response rate, and risk of volunteer bias. The study may have potentially captured intermediate individuals, possibly missing individuals with severe functional impairments or living without any. Future studies can include a large sample size and use strategies to increase response rate.

Conclusion: This study suggests that the SAGE can be used as a screening tool for global functioning in place of the 12-item WHODAS and TUG in the cardiac population. However, if a client indicates difficulty in the mobility item of the SAGE, the TUG can be used as an objective evaluation of mobility along with other assessments to understand the cause of the perceived difficulty indicated.

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Reference:
Determining the Knowledge Gaps of Occupational Therapists in Indigenous Health

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Abstract

Introduction: The Truth and Reconciliation Commission findings present calls to action that outline steps to engage in the process of reconciliation with Indigenous populations. There is a pressing need for the occupational therapy (OT) profession to respond to the call and work towards improving the health and well-being of Indigenous populations. Objectives: 1) To determine the knowledge gaps of OTs about Indigenous health and 2) to create recommendations, including education to address identified gaps, to inform the response of the profession. Literature Review: A scoping review of occupational therapy literature and Indigenous health in the Canadian context will be completed. Themes will be identified utilising a triangulation method between researchers. Methods: Using the Delphi consensus exercise, we will work with Indigenous health experts in the OT community to create and distribute a needs survey to OTs across Canada. The survey will incorporate questions to determine the present knowledge of OTs about Indigenous health concerns and practices. Results/Discussion: Data collected from the surveys will assist in informing themes that will guide recommendations. The project will identify how OTs currently address Indigenous health issues and the existing knowledge gaps within the profession. This project will further determine the culturally sensitive theories and models currently used in OT practice. Conclusions/Future Directions: The project will offer needed insight into the role of OT in the process of reconciliation and in working with Indigenous populations, and should evoke awareness of these issues within our profession. The project will create recommendations that inform action steps in response to the Truth and Reconciliation Commission Report. The findings will actively work to reframe, integrate and build upon Indigenous health knowledge from a systems-level perspective.

Introduction

The Truth and Reconciliation Commission findings present calls to action that outline steps to engage in the process of reconciliation with Indigenous populations. There is a pressing need for the occupational therapy (OT) profession to respond to the call and work towards improving the health and well-being of Indigenous populations.\(^1\)\(^2\) The objective of this project is to determine the knowledge gaps of OTs about Indigenous health.

Methods

Literature Review

A scoping review of occupational therapy literature focusing on Indigenous health in Canada was conducted. The review included searching CINAHL, OTSeeker, AMED, Social Sciences Abstracts, PsycInfo, as well as grey literature. A total of 211 articles were identified and after duplicates and screening for eligibility, 30 articles were selected for full review. Articles were included if the article focused on Indigenous health, were Canadian in context, and included an OT perspective. Selected articles were then reviewed collectively and themes were identified within articles using overlapping reviewers. Triangulation methods were then used to identify prevalent themes among the remaining articles. In total the review resulted in 10 primary themes identified with 52 sub-themes identified within the 10 primary themes (see results section).

Delphi Consensus Exercise

Currently a Delphi consensus exercise with the Occupational Therapy and Aboriginal Health Network (OTAHN) as the expert group is underway with the purpose to identify and endorse themes that will be used to generate survey questions for a national needs survey to identify knowledge gaps of OTs in Canada. A Delphi consensus exercise is a step-wise process of eliciting input from individual experts, compiling the input, and subsequently sharing back the compiled information to identify priority areas of survey question development.\(^3\)\(^4\) In round 1 of the exercise, the OTAHN reviewed a list of themes on the topic of OT and Indigenous health generated from the scoping review and identified missing themes. In round 2, the OTAHN ranked these themes to identify the focus of question generation for the survey (1 = highest priority to 10 = lowest priority). This Delphi consensus exercise was facilitated through the use of Limesurvey to ensure that confidentiality was maintained. Consensus was not achieved in round 2, and therefore a round 3 of the Delphi exercise was necessary. In Delphi round 3 the OTAHN was provided with the results of the rankings from round 2 and respondents were asked to agree with the current ranking, or rank again in a preferred order.
Results/ Discussion

Based on Delphi round 2 results, the themes were ranked based on the sum total of the rankings for each theme. The preliminary ranking is as follows: (1) impact of colonialism, (2) respecting knowledge, (3) power imbalances, (4) Indigenous relationships/partnerships, (5) cultural safety, (6) underlying assumptions of the profession, (7) inappropriate use/imposition of Western norms, (8) reflective/critical practice, (9) occupational therapy as a vessel that perpetuates the cultural genocide of colonialism, (10) advocacy/innovation. Results from Friedman’s test indicate that there is not a significant difference between the mean rankings of any of the themes in round 2 of Delphi ($\chi^2 (9)=14.055$, $p=0.120$; see table 1). These results highlight the lack of consensus in the ranking of the identified themes, and it was determined that a round 3 was necessary.

In round 3, the themes were returned in the same order that was established in round 2. Friedman’s test results indicate that there is a significant difference between the mean rankings of the themes ($\chi^2 (9)=62.356$, $p<0.001$; see table 2). Dunn-Bonferroni post hoc tests reveal significant differences ($p<0.05$) between the themes ranked at the top with those ranked at the bottom (see table 3). Survey questions will reflect the priorities illustrated by the results of the Delphi consensus exercise.

Conclusions/ Future Directions

Next steps for this project includes developing a national needs survey based on the Delphi results to reflect the priorities identified by the OTAHN. Overall, the survey will incorporate questions to determine the present knowledge of OTs about Indigenous health concerns and practices and determine culturally sensitive theories and models currently being used in OT practice. The project will create recommendations that inform action steps in response to the Truth and Reconciliation Commission Report.

Acknowledgements

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Seminal References

The Aspiring Workforce in Canada:  
Developing a business case toolkit for hiring and accommodating workers with mental illness  
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Funded by: The Mental Health Commission of Canada

### Abstract

Introduction: Employment is an important component of recovery from mental illness, however employers remain hesitant to hire and accommodate these workers. Using a mixed methods approach, Gewurtz and colleagues developed the business case for hiring and accommodating workers with mental illness. The focus of this project is to use knowledge translation to disseminate the findings from that study to business stakeholders in the form of a toolkit.

Method: Two advisory group meetings and three individual interviews were conducted with business stakeholders, and their feedback informed the creation of the toolkit.

Results: Participants discussed potential barriers to using the toolkit and suggested ways to adapt the academic material from the study to a clear, simply format that is relevant for human resource (HR) professionals.

Discussion/Future Directions: Feedback from participants emphasized the need for a clear, simple, efficient toolkit that can be easily understood and used by HR professionals. Due to the iterative nature of the toolkit’s development, the toolkit will undergo further revisions and edits during the upcoming field-testing phase.

### Introduction

The Aspiring Workforce is a term coined by the Mental Health Commission of Canada (MHCC) to represent individuals with mental illness who have been unable to enter the workforce, have been in and out of the workforce, or wish to return to the workforce after a time away. This cohort represents as much as 70-90% of individuals with severe mental illness. Employment is known to be an important piece in many individuals’ recovery, as it positively affects mental health.

While the benefits of employment for individuals with mental illness has been well established, the experiences of employers of individuals with mental illness has received less attention. To address this gap, the MHCC recently turned its attention to developing the business case for including individuals with mental illness in the workplace and to uncovering what organizational strategies are successful for accommodating workers with mental illness. Gewurtz and colleagues studied five Canadian businesses of various sizes and across various sectors who have taken steps to hire and integrate workers with mental illness. The mixed methods study explored the experience of workers with mental illness, their coworkers, and their employers. It also conducted an economic analysis to determine the costs and benefits to accommodating workers with mental illness. Key findings included the following: 1. All studied organizations felt it was critical to ensure employers create a healthy workplace culture to support all employees. 2. Many of the workers with mental illness relied on universally available benefits to meet their needs. 3. All organizations found a significant return on investment (ROI) for accommodating workers with mental illness.

Despite these findings, many workplaces are hesitant to hire and accommodate workers with mental illness. This is likely in part due to a lack of knowledge of the potential ROI for hiring and accommodating, and an unawareness of effective low and no cost organizational strategies to recruit and accommodate workers with mental illness. Therefore, this project aims to utilize a knowledge translation approach to share the business case for hiring and accommodating workers with mental illness to human resources (HR) professionals. Knowledge translation is the synthesis, dissemination, exchange, and application of knowledge with the purpose of improving the health of Canadians. The authors utilized Graham and colleague’s knowledge to action process to guide the creation of a toolkit for organizations to create their own business case for hiring and accommodating workers with mental illness.

### Method

**Design.** Two advisory group meetings in the form of focus groups and individual meetings were conducted to carry out the knowledge translation process.

**Participants and Setting.** Participants were business professionals holding various positions including principal, president, executive director, manager, and HR professional. In total, there were nine participants. They represented six organizations of various sizes. Four participants attended the first advisory group meeting, and nine attended the second. Three of the participants who had HR familiarity were interviewed individually by the authors. All meetings were conducted by telephone conference, with exception of one advisory group meeting, which took place in person at the Institute for Work and Health in Toronto, ON.

**Procedure.** Semi-structured interviews with members of the advisory council were conducted to obtain their perspectives of the draft toolkit that was circulated prior to the meeting. Interview questions were prepared by the authors and supervisor. All meetings were recorded. The advisory group meetings and individual interviews occurred March to May, 2018. Following the meetings, the authors and supervisor reviewed main points of the meeting discussions and altered the toolkit accordingly.

The authors used three components of the knowledge to...
action process: to guide the development of the toolkit: Adapt knowledge to local context: Feedback was requested from the participants to help the authors to shape the information from the study into a format and language that would be familiar and relevant to HR professionals.

Assess barriers to knowledge use: Feedback was sought from participants to help the authors identify factors affecting end-users’ willingness to seek out and use the toolkit. Additionally, authors sought information to ensure user-friendliness of the tool.

Select, tailor, and implement interventions: Participants’ feedback was sought to ensure that this toolkit would be successful in disseminating the business case for hiring and accommodating workers with mental illness.

Results

Adapt knowledge to local context. What HR professionals require from this tool: It was noted that the toolkit needs to shift from an academic format to a more user-friendly format to ensure it can be used quickly and efficiently in times of need. Self-Assessment: Participants indicated that they would like a self-assessment included in the toolkit, which allows organizations to reflect on a company’s current practices and areas for growth in relation to hiring and accommodating workers with mental illness. Suggestions for topics covered in the self-assessment were diverse, and included aspects of recruitment, retention, social justice, and compliance. Financial Computation for Business Case: Participants reported that examples of tangible and intangible financial outcomes are ideal and preferably should be tailored to the different types of businesses incorporated in the phase one report. It was also suggested that the financial section decrease the emphasis placed on monetary benefits and emphasize the value of social responsibility and its ability to improve business.

Assess barriers to knowledge use. General Feedback: Participants discussed one barrier to using the toolkit being the need for a specific and clearly defined audience. Additionally, participants felt that a barrier to implementation of the toolkit was that it mainly addressed why workplaces should provide accommodations rather than specifying how they can do so. Financial Computation for Business Case: Participants indicated that the complexity of the financial computation section was a barrier to usability. They suggested simplifying the tables in the financial computation section to increase clarity.

Select, tailor and implement interventions. To ensure that the toolkit effectively disseminates the knowledge, it was recommended that the toolkit contain a short card to provide a brief explanation about why the toolkit should be used. Participants suggested integrating quick, low-cost solutions and strategies for accommodating workers with mental illness to enhance efficient decision-making. Lastly, participants suggested using the familiar quality improvement cycle Plan-Do-Check-Act (PDCA)\(^1\) to outline a specific example of a successfully implemented workplace accommodation taken from the study.

Discussion and Future Directions

Overall, feedback from participants emphasized the need for a clear, simple toolkit that can be easily understood, as it was acknowledged that business users are busy and require effective solutions to problems provided in a timely manner. It was suggested that the toolkit present a strong focus on both why and how it should be used so that its purpose can be more easily understood, with the expectation that this will make the toolkit appeal to more business users. Participant recommendations assisted the authors in ensuring that the toolkit would appeal to the target market. An example of this was the recommendation of a self-assessment section, which would prompt business users to reflect on their current hiring and accommodation practices. This was voiced as important for business users because they have a corporate responsibility to uphold business standards and be competitive. Suggestions from participants also prompted the resolution of barriers, such as how to ensure end-users pick up and use the toolkit. One such suggestion was the short card, which would provide a brief overview of the value of the toolkit. Due to the iterative nature of the toolkit’s development, the toolkit will undergo further revisions and edits during the upcoming field-testing phase. Future developments may address the suggestion to incorporate a short card to emphasize why the toolkit should be used. As well, low-cost strategies will be emphasized throughout the toolkit to provide quick access to solutions. Additionally, the financial section will be simplified for usability.

Implications for OT. Occupational therapists (OTs) working in disability management, return to work, and mental health settings may be interested in incorporating this toolkit into their work with clients. Employment is often a meaningful component of clients’ lives,\(^1\) and therefore OTs should have resources like this toolkit to assist them in convincing business stakeholders that hiring and accommodating their clients benefits both parties.

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References


**What Happens to Intimacy When it Hurts to be Touched?**

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### Abstract

**Introduction:** Persons with complex regional pain syndrome (CRPS) often experience allodynia, where non-painful stimuli are perceived as painful.¹ There is little qualitative research describing experiences of this syndrome.² **Purpose:** To examine the impacts of CRPS on intimacy. **Methods:** We conducted a mixed-methods secondary analysis. The study included 44 persons with CRPS who were interviewed about their experiences with CRPS while orally completing a condition-specific patient-reported questionnaire.³ Using descriptive statistics and thematic content analysis, we analyzed questionnaire responses describing painful sensitivity, relationship, and intimacy items, as well as responses to other questionnaire items where issues of allodynia, relationships, and intimacy were raised. Responses were contrasted with ratings for these items and the overall scale and instrument scores. **Findings:** There was a high correlation between painful sensitivity scores and negative impacts on relationships and intimacy. Two themes emerged from this analysis of the impact of CRPS pain on intimacy: a renegotiated social identity and participation, and a reinvented intimate self. **Conclusions:** CRPS has pervasive impacts on the individual’s relationships and intimacy. Healthcare providers working with this population must incorporate discussions on the spectrum of intimacy experienced. Persons with CRPS also need to be supported in occupations which allow them to express intimacy in their everyday lives.

### Introduction

Persons with complex regional pain syndrome (CRPS) often experience allodynia, where non-painful stimuli are perceived as painful.¹ Allodynia is associated with central sensitization and poor prognosis,¹ but the impact on physical function and social relationships has not been clearly reported. Further, there is little qualitative research describing experiences of this syndrome,² and no research on the impact of this syndrome on intimacy has been done. Thus, this study examines the impact of CRPS on intimacy.

### Methods

We conducted a mixed-methods secondary analysis of data obtained in a previously published study³ using semi-structured cognitive interview recordings, based on a condition-specific patient-reported questionnaire to debrief 44 individuals living with CRPS affecting any limb. All original recording transcripts were read in their entirety by at least one author (TP, KW, or MKW). We extracted questionnaire ratings and responses describing painful sensitivity, relationship, and intimacy items, as well as other questionnaire items where issues of allodynia, relationships, and intimacy were raised. These items were then used to create ‘mini-transcripts’ specifically to address the research question. We analyzed the mini-transcripts using descriptive statistics and thematic content analysis.⁴ Codes were developed through discussion and consensus based on readings of the transcripts, and a codebook with *a priori* codes was developed. Each mini-transcript was coded by one of the researchers who was not involved in its creation (e.g., TP coded KW’s set of mini transcripts). Questionnaire responses where the researcher had doubts about the code to be used were coded only after consensus was reached through discussion. After coding was completed, we grouped the codes into categories and collapsed these into themes through discussion and consensus. Themes were conceptualized as “an abstract entity that brings meaning and identity to a recurrent experience and ... unifies the nature or basis of the experience into a meaningful whole” (p. 362).⁴ Responses addressing allodynia, relationships, and intimacy were contrasted with ratings for these items as well as correlations between scores.

### Findings

Our data was drawn from interviews with 44 persons (40 female) with a mean age of 47.8 years (range 15-81) and average duration of CRPS symptoms of 67.6 months (range 3-324 months). Over half of
participants lived with a partner, while 25% lived alone, and 20% lived with others (usually family). On average, participants reported a high impact of symptoms on questionnaire items pertaining to painful sensitivity (4.5/6), relationships (4.7/6), and intimacy (4.5/6). Painful sensitivity demonstrated a weak but statistically significant relationship to intimacy scores ($r=0.12$, $p=0.03$). From participant descriptions, we created 33 codes describing aspects of loss of control and shared experiences; lack of understanding or validation of pain; altered self-concept, including body image issues and symptom shame; a need for self-preservation, and the representation of intimacy as a spectrum. From these explorations, we identified two dominant themes: 1) renegotiated social identity and participation, and 2) reinvented intimate self.

### Discussion and Conclusions

Our findings suggest CRPS sensitivity has marked and widespread impacts on the person’s relationships, and their ability to engage in activities where intimacy can be expressed. While some participants referred to intimacy in terms of sexual activities, many depicted nuanced, multidirectional experiences of intimacy related to a) the need to renegotiate social roles and identities in the context of their relationships, and b) modifying their existing schemata as intimate beings. Impacts on sexual function have been documented in other chronic pain conditions such as fibromyalgia.⁶ Additionally, a recent paper comparing reactions to intimate touch in women with and without sexual dysfunction highlighted the importance of the spectrum of intimate behaviours to dyadic relationships.⁷

A key strength of this mixed methods study is the large sample size, producing data rich in both breadth and in depth. Conversely, a limitation was our strategy to focus only on any responses in the dataset addressing the constructs of relationships, intimacy, and allodynia, including the questionnaire items pertaining to these constructs, rather than analyzing the entire transcripts. This narrowing could have limited our understanding of the spectrum of intimacy experienced by the participants, potentially affecting the credibility of the work. However, our results captured a picture of intimacy via a variety of questionnaire items, and it was broadly represented by participants across a wide variety of contexts.

Health professionals must recognize the pervasive impacts of allodynia in persons with CRPS, and include discussions on the spectrum of relationships and intimacy. Healthcare providers can also support these individuals in occupations which allow them to express intimacy in their everyday lives.

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### References