Preliminary Clinical Pathway for Cancer Related Cognitive Impairments (CRCI)

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Introduction

- 76% of oncology clients face cancer-related cognitive deficits
- Cancer and cancer treatments have been found to create a varied neurocognitive decline for clients
  - Previously known as “chemo-brain”
- Interventions have been found to be difficult to structure due to the variability of deficits

Needs Assessment Results

1) The OTs felt interventions were not structured and were disorganized

2) Clients often had many questions surrounding cognitive deficits due to chemotherapy

3) Therapists desired a concise way to organize and structure interventions

Doctoral Experiential Internship Site

City of Hope

- Main campus - Duarte, CA
  - Nationally rated for adult specialty treatment
  - City of Hope has multiple avenues for research
- Occupational Therapy Department
  - Inpatient and Outpatient

Literature Review

- The lack of data on gold standard or reliable assessment tools to begin OT treatment is a difficult problem (Olsen et al., 2016).
- Inconsistent measures
  - several articles found group interventions to have moderate changes when compared to individual interventions (Becker et al., 2018).
- No models currently exist to guide OT treatments, a clinical pathway can organize and structure information for interventions (Kinsment et al., 2010).
  - Definition of a clinical pathway (Seys et al., 2017):
    1) Multidisciplinary intervention
    2) Best evidence into action
    3) Outlines treatments
    4) Sets timeframes or levels of intervention progression
    5) Intervention addresses a detailed clinical problem

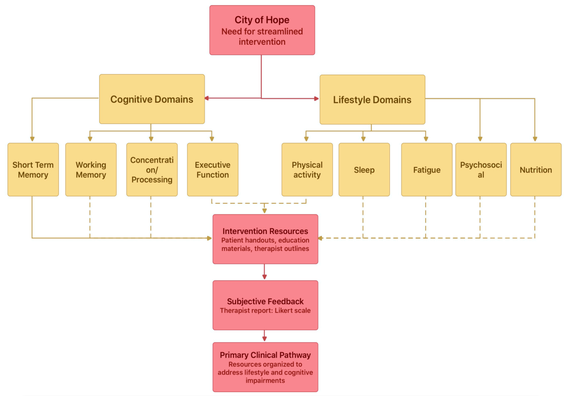
Learning Objectives

1) Synthesis of current evidence with previous evidence and resources

2) Development of an intervention outline sample

3) Clinical pathway to guide interventions and provide patient resources

Methods & Implementation



Week 1-3: Previous resources gathered, mentor meeting, shadow schedule created

Week 3-5: Meeting with neuropsychologist, shadowed OTs, began resource creation

Week 5-8: Developed initial drafts of patient handouts for clinical pathway

Week 8-12: Created and formalized draft of clinical pathway composed of intervention resources

Week 12-13: Gained initial feedback and implemented changes. In-service on new treatment options

Week 13-14: Gained final subjective feedback regarding handouts

Week 14-16: Final clinical pathway organization, in-service, and data analysis

Data Collection

- Bi-weekly meetings to analyze and discuss creation of clinical pathway materials
- Pre/post test Likert scale dispersed at the end of the DEI to gather quantitative data to gauge effectiveness of the completed pathway

	1-not at all	2	3	4	5-very much
1. The current resources and evidence surrounding cancer related cognitive impairments is enough.					
2. I have a good understanding of how to address cognition in the inpatient and outpatient setting.					
3. Do you know where to find all cancer related cognitive deficit resources?					
4. Do you find yourself looking for more patient resources?					
5. I have a good understanding of cancer related cognitive impairments.					

Results

- Paired t-test via Jeffery’s Amazing Statistics Program (JASP) software
- P-value significant ($p = <0.05$) between:
  - Q1-Q6 $p = 0.005$
  - Q2-Q7 $p = 0.017$
  - Q3-Q8 $p < 0.001$
  - Q4-Q9 $p < 0.001$
  - Q5-Q10 $p = 0.029$
- Therapist data reported **statistical significance across all domains**

Paired Samples T-Test

Paired Samples T-Test

			t	df	p	Cohen's d	95% CI for Cohen's d Lower	Upper
Q1	-	Q6	-3.674	9	0.005	-1.162	-1.958	-0.329
Q2	-	Q7	-2.905	9	0.017	-0.919	-1.649	-0.154
Q3	-	Q8	-5.667	9	< .001	-1.792	-2.798	-0.752
Q4	-	Q9	5.250	9	< .001	1.660	0.666	2.619
Q5	-	Q10	-2.586	9	0.029	-0.818	-1.524	-0.079

Note. Student's t-test.

Limitations

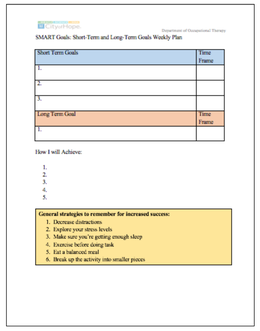
- Limited time on site
- Differences in clinical approaches may change overall structure
- Unable to administer pathway
  - Unable to test resources and material on client

Discussion

Scholarly Deliverables:

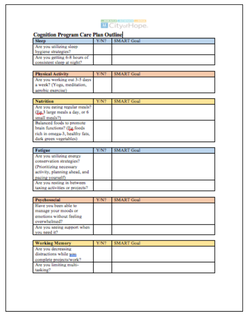
Example 1

- Introductory explanation handout for patient
- Administered at the beginning of treatment for normalization and guideline for client



Example 2

- Goal planning worksheet
- Administered after every session for client centered goals



Example 3

- Resource guidelines for clients to follow up on after OT treatments
- Handout explained to client towards end of OT treatment

Implications

- OT treatments for cognitive deficits more streamlined
  - Structured and organized pathway
- Increased structure may provide better outcomes
  - Therapist confidence
  - Client understanding
  - Clinical pathway edits

Acknowledgements

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2) Sergio Sandoval, OTD, OTR/L, CHT
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*Resources can be provided upon request