Functional Cognition Assessments: Implications for Skilled Nursing Facilities

Logan Reinhiller,
Functional Cognition Assessments:
Implications for Skilled Nursing Facilities

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A doctoral project submitted in partial fulfillment of the requirements for
The Doctor of Occupational Therapy,
St. Catherine University, St. Paul, Minnesota

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Abstract

Functional cognition is a critical topic in occupational therapy practice. Functional cognition can be considered a client factor that impacts one’s occupations, performance skills, and patterns. As Giles (2017) stated: “Functional cognition is known as the interaction of cognitive skills and self-care, and community living skills” (p. 1).

The purpose of this knowledge translation doctoral project was to educate occupational therapy practitioners and students on the importance of functional cognition assessments and interventions for older adults in skilled nursing settings.

Three knowledge translation projects were developed with an emphasis on functional cognition assessments and interventions for older adults in the skilled nursing setting. The first project was a presentation designed for members of the South Dakota Occupational Therapy Association. The second project was an educational module for entry-level doctoral occupational therapy graduate students. The final project was a manuscript proposed for an American Occupational Therapy Association magazine or newsletter. These projects summarized evidence and proposed recommendations regarding the important role of occupational therapy in addressing functional cognition necessary to support safety, performance, and level of assistance needed for completing activities of daily living.
Acknowledgements

Functional cognition was a topic that interested me shortly after beginning my occupational therapy career in the skilled nursing setting. As occupational therapy practitioners, we have a unique role to assess complex client factors while taking safety, independence, and environmental contexts into consideration. I wanted to advocate for the residents I served because I knew there was an opportunity for occupational therapy practitioners to impact the older adult population, especially in the skilled nursing settings, which is where my research journey began.

Functional cognition became a personal interest, too, when my fifty-one-year-old father was diagnosed with Primary Central Nervous System Lymphoma in August 2019. The MRI scans showed three large tumors on my father's frontal lobe. His cognition and memory were mildly impaired after the craniotomy operation and it was in those moments when I knew that functional cognition was my passion, solidifying my goal to be an advocate in this area of practice. Thank you, Dad, for surviving this battle with cancer and cheering me on along the way while I challenged myself during this post-professional doctoral degree.

I would also like to thank Dr. Timothy Wolf, Dr. Dorothy Farrar Edwards, and Dr. Gordon Muri Giles for their impeccable work with “Functional Cognition and Occupational Therapy: A Practical Approach to Treating Individuals with Cognitive Loss”. This text was motivating to read and inspired my knowledge translation projects.

A special thank you to my committee members, Dr. Matuska and Dr. Ikiugu, for providing constructive feedback and assisting with my final product. Lastly, thank you Dr. Julie Bass. You helped me become a scholar, but more importantly educated me on
the importance of perseverance, self-care, and grace. I am so thankful to have had you on this journey. I am a better person because of you.
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Chapter 1. Introduction and Background

Background

Functional cognition should be an integral part of occupational therapy practice as it is a client factor that impacts occupational participants, performance skills, and patterns. As Giles (2017, p. 1) asserted: “Functional cognition is known as the interaction of cognitive skills and self-care, and community living skills”. Additionally, impairments in functional cognition may influence a client’s safety and independence with performance of activities of daily living (ADLs).

I graduated with my master’s degree in occupational therapy in June 2018. For the past two years I have worked in a variety of settings such as an outpatient, orthopedic, home health, acute, inpatient rehabilitation, and skilled nursing settings. In these settings, my primary role is typically to assess clients’ safety with participation in activities of daily living (ADLs) and instrumental activities of daily living (IADLs). In the skilled nursing setting, I work closely with a certified occupational therapy assistant (COTA) who carries out the plan of care after I have evaluated a client’s needs. Before completing an evaluation, I receive a formal order from the primary physician after staff report physical impairments, like pain or limited mobility, a sudden decline in function, increased dependence with ADLs, or decreased memory. After a referral is made, an occupational therapy practitioner conducts an evaluation. A referral may indicate “decline in memory” as a primary reason for decline in occupational performance. In my professional experience, speech language pathologists are included in the referral and assume responsibility for problem-solving strategies or compensatory methods to
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address memory decline while the occupational therapy practitioners address deficits related to safety in performance of activities of daily living.

It is best practice to initiate a cognitive assessment promptly after receiving a referral since cognitive declines are often associated with decreased safety in performing activities of daily living. In the skilled nursing setting, I quickly discovered a gap with current cognitive assessments and clients’ performance of activities of daily living and meaningful occupations. Recent research indicates there are assessments that measure functional cognition and occupational performance, which would be beneficial to the assessment of residents in the skilled nursing facilities. Examples of these assessments include the Executive Function Performance Test (EFPT) (Baum et al., 2008), Weekly Calendar Planning Activity (Toglia & White, 2019), and Performance Assessment of Self-Care Skills (PASS) (Holm et al., 2008).

Many occupational therapy practitioners have limited awareness of evidence-based assessments for functional cognition outside the ones currently used in their own practice settings. If evaluation protocols in skilled nursing facilities are strengthened to include functional cognition assessments, clients may have better outcomes including increased safety and independence with activities of daily living and decreased hospital re-admissions. There is an opportunity for occupational therapy practitioners to improve health outcomes in skilled nursing through the implementation of functional cognition assessments and interventions.

Review of Evidence

Policy changes in the Centers for Medicare and Medicaid Services (CMS) associated with the Improving Medicare Post-Acute Care Transformation (IMPACT) Act
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(AOTA, 2015) are providing opportunities for occupational therapy. AOTA has made recommendations to CMS to incorporate a performance-based screen for functional cognition (Giles et al., p 1, 2014). The current gap in occupational therapy practice in the skilled nursing setting is the lack of functional cognition assessment implementation for older adults. The IMPACT Act of 2014 requires that post-acute care (PAC) settings, such as long-term care hospitals, inpatient rehabilitation hospitals, skilled nursing facilities, and home health agencies, initiate specific criteria for performance of activities of daily living, such as self-care tasks, functional mobility, and functional cognition (Middleton et al., p. 1427, 2016). These standards are in place to ensure quality patient care and outcomes. Rehospitalization impacts the client, both physically and financially and is a reflection on the quality of care provided in some post-acute settings.

The cost of rehospitalization doubles for community-dwelling older adults with conditions that can be treated in PAC settings, such as long-term acute hospitals, skilled nursing facilities, home health care, or inpatient rehabilitation facilities (Middleton et al., 2016). By understanding a client’s functional status, which includes level of independence in mobility, self-care, and cognition, proper recommendations can be made for the level of care needed and the optimal living situation to prevent rehospitalization. An estimated 20% of residents are at risk of decreased quality of life due to hospital readmission within thirty days of discharge (Buslovich & Kennedy, 2012; Herrin et al., 2015). One way to reduce rehospitalization rates in skilled nursing facilities would be to incorporate functional cognition assessments and interventions into occupational therapy plans of care for a more accurate depiction of a resident’s level of performance in self-care and mobility.
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By completing performance-based functional cognition assessments with an emphasis on how cognitive deficits impact ADL and IADL performance, occupational therapy practitioners can develop interventions with a more accurate depiction of the cognitive capacity of older adults. Family members and caregivers, nursing staff, and interprofessional therapy teams can also be better educated on the residents’ needs in order to ensure optimal patient care and safety.

Occupational therapy practitioners in skilled nursing facilities often work with individuals living with neurodegenerative diseases, such as dementia. If an individual’s functional cognition score indicates that more assistance is needed for performance of activities of daily living, there are interventions and recommendations that occupational therapy practitioners can provide to increase safety, maximal participation, and quality of life for the resident. There are methods to promote functional cognition for individuals diagnosed with dementia and similar diagnoses.

The Cognitive-Functional Evaluation Framework (C-FE) was introduced by Hartman-Marier, Katz, and Baum (2009) to provide a systematic approach to evaluating the implications of cognitive deficits in everyday life (Wolf et al., pp. 39, 2019). The C-FE framework requires gathering data from multiple sources of information in order to evaluate functional cognition and develop an intervention plan in a skilled nursing facility. Skilled observations of occupational performance are not enough. This framework identifies the following evaluation domains and evaluation methods. “The five domains are 1) the client’s cognitive occupational narrative, 2) cognitive factors, 3) functional cognition observed during occupational performance, 4) self-awareness and beliefs regarding cognitive deficits and functional cognition, and 5) evaluation of
environmental factors” (Wolf et al., 2019). Methods of assessments include interviews, self-reports, and performance-based assessments.

A cognitive occupational narrative is the client’s perception of their own cognition and how it impacts their daily occupational performance. The AOTA occupational profile template is used to guide an interview to gather the occupational participation narrative (AOTA, 2014). It is important to note that if the client is having difficulty with their own narrative, a family member or friend who knows the client well can step in and fill in the gaps. Cognitive factors impacting performance that can be identified during the interview may include, but are not limited to, problem-solving strategies, executive functioning, recall, sequencing, initiation, or orientation. Screening assessments may then be used to identify more specific possible cognitive deficits, although it is important to note that these screening instruments do not assess functional cognition performance.

Occupational performance is evaluated at the level of task performance. The evaluation of occupational performance is a complex part of the framework, as there are multiple performance-based and functional cognition methods. Occupational therapy practitioners also evaluate the level of assistance needed in performance of various occupations, number of errors made during performance, behaviors, problem-solving methods, and time it takes to complete a task.

Self-awareness and beliefs refer to the client’s awareness of their cognition and how it impacts their performance. Self-reports and interviews may be used in this section. The last domain evaluated in the Framework is the environmental factors, that may have a considerable impact on functional cognition and occupational performance.
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The client’s bedroom, chapel, dining area, restroom, and hallway can support or hinder performance. Self-reports, interviews, skilled observations, and performance-based tests may be used to assess the environmental supports and barriers to a resident’s performance in a skilled nursing setting.

The Cognitive-Functional Evaluation Framework (Hartman-Marier et al., 2014) operationalizes many of the constructs in the Occupational Therapy Practice Framework (AOTA, 2014). Areas assessed using this framework include the contexts, client factors, and performance skills that support or limit occupational performance. The Cognitive-Functional Evaluation Framework was intended to evaluate both the client and their environment and how the environmental supports and barriers impact functional cognition and participation in residential settings. It is important to use this framework in occupational therapy practice, especially with older adults in the skilled nursing facilities, as it can help determine the level of safety and independence in performance within their environment. The C-FE Framework is also beneficial in assessing the functional cognition of individuals residing in a skilled nursing facility short term while being rehabilitated for potential discharge to the community. The occupational therapy practitioner can use this framework to generate information that can help the interprofessional team understand the client’s functional cognitive capacity and readiness to return home. This doctoral project will provide examples of functional cognition assessments that can be selected and administered as part of the C-FE framework.

The key argument being advanced here is that occupational therapy practitioners are qualified in assessing and providing interventions to mediate problems related to
functional cognition among older adults. However, there is still limited evidence that this is occurring in skilled nursing facilities. There are many cognitive assessments, some more reliable and valid than others, that can be used to evaluate functional cognition in a variety of settings. A list of evidence-based functional cognition assessments and the populations on which they have been validated can be seen in Table 1 (Wolf et al., 2019).
Table 1.

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Population</th>
<th>Evidence of Validity</th>
<th>Evidence of Reliability</th>
</tr>
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<tbody>
<tr>
<td>The Executive Function Performance Test</td>
<td>Alzheimer’s disease, Parkinson’s Disease, Multiple Sclerosis, traumatic brain injury, stroke, spinal cord injury, and psychiatric disorders (Baum et al., 2008)</td>
<td>Predictive validity was determined (Baum et al., 2008)</td>
<td>Good to excellent interrater reliability has been demonstrated among patients with stroke (Baum et al., 2008)</td>
</tr>
<tr>
<td>Weekly Calendar Planning Activity (Toglia &amp; White, 2019)</td>
<td>Individuals with possible executive functioning deficits including: stroke, traumatic brain injury, brain tumor, Multiple Sclerosis, mild cognitive impairment, Parkinson’s Disease, cancer, renal or cardiac disease, chronic obstructive pulmonary disease, lupus, rheumatoid arthritis, diabetes, autism, learning disabilities, attention deficit hyperactivity disorder, cerebral palsy, schizophrenia, substance abuse, bipolar disorder, depression, concussion, post traumatic stress disorder, community-dwelling older adults (Toglia &amp; White, 2019)</td>
<td>Discriminant validity among participants with multiple sclerosis and cognitive impairments</td>
<td>Interrater reliability with college students with and without ADHD</td>
</tr>
<tr>
<td>Performance Assessment of Self-Care Skills (Holm, Rogers &amp; Hemphill-Pearson, 2008)</td>
<td>Both men and women from late adolescence through later adulthood, regardless of mental or psychiatric diagnosis or developmental condition (Holm, Rogers &amp; Hemphill-Pearson, 2008).</td>
<td>Construct validity of the PASS measurement was established with factor analysis and Cattell’s scree test.</td>
<td>Interobserver reliability in the Clinic and Home versions ranged from 92% to 96% for independence, 93% to 97% for safety, and 88% to 90% for adequacy</td>
</tr>
<tr>
<td>Pearson, (2008).</td>
<td>Construct validity was also confirmed with known-groups differences. (Holm, Rogers &amp; Hemphill-Pearson, 2008).</td>
<td>(Holm, Rogers &amp; Hemphill-Pearson, 2008).</td>
<td></td>
</tr>
</tbody>
</table>
All the assessments listed in Table 1 are used to evaluate functional cognition as indicated by executive functioning, performance, memory, and problem-solving within an occupation-based context. Functional cognition deficits that impair performance of activities of daily living (e.g., bed mobility, dressing, toileting, bathing, and grooming), and instrumental activities of daily living (e.g., cooking, bill paying, scheduling appointments, completing grocery lists, or leisure activities like Bingo) are evaluated and the level of support required for safe performance is determined. By understanding the functional cognition strengths and limitations of a client, the occupational therapy practitioner is more equipped to identify appropriate environmental modifications, discharge options, and compensatory strategies needed to ensure safe client performance. Interventions that directly address functional cognition problems may be used to enable individuals to participate more fully in self-care, work, leisure, and community activities that enhance quality of life and reduce the burden on caregivers and societal resources (Giles, p. 2, 2017).

The Executive Function Performance Test (EFPT) is used to assess an individual’s ability to initiate, organize and sequence actions in order to complete tasks safely using sound judgement (Baum et al., 2008). The EFPT helps occupational therapy practitioners and skilled nursing staff understand how functional cognition is supporting or hindering a client’s ability to complete everyday tasks. It is used to examine the execution of four basic tasks that are essential for self-maintenance and independent living, including simple cooking, telephone use, bill payment, and medication management. (Baum et al., 2008). Performance of each task is scored on five performance criteria based on the number of cues needed to complete the tasks.
The administrator then adds these values to create a subtask score. Subtask sheets and final scoring sheets are available in the online test manual. (Baum et al., 2008, Wolf et al., 2019).

The level of cuing and assistance needed to perform a subtest is unique in EFPT and integral to both the administration and scoring. The hierarchy of cues include: no cues required, indirect verbal guidance, gestural guidance, direct verbal assistance, physical assistance, and do for the participant (Baum et al., 2008). The EFPT would be beneficial in determining the level of cuing or assistance necessary to complete activities of daily living by residents in skilled nursing settings. If a resident requires a specific type of cue to initiate the task during the assessment, this information can be shared with the interprofessional team and resident’s family so they know how to cue the residents to ensure optimal safety and independence in performance. For example, if a resident requires more assistance with the organization subtest, the interprofessional team can communicate that items must be set up for the resident, such as grooming products to complete oral hygiene before bedtime. Additionally, if a resident requires more assistance with sequencing, the occupational therapy practitioner can make recommendations to have task performance laid out step by step in order to increase orientation to tasks.

A study was conducted to test the reliability and validity of the EFPT. Seventy-three participants diagnosed with mild to moderate stroke and twenty two age- and education matched controls completed all four tasks of the EFPT. The subtest and total scores were analyzed and showed high levels of interrater reliability. (.94 ICC for
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cooking, .89 ICC for paying bills, .87 ICC for managing medication, .79 ICC for telephone use and .91 ICC for the total score). (Baum et al., 2008)

The Weekly Calendar Planning Activity (WCPA) is another performance-based assessment for functional cognition (Toglia et al., 2015). The WCPA can be administered to individuals with a variety of clinical conditions, including neurological injuries, chronic illnesses, developmental disorders, mental health disorders, and other cognitive problems associated with physical or mental conditions (Toglia et al., 2015). The test taker is asked to plan and organize activities requiring mental tracking, problem solving, and memorization. There are three levels of difficulty in this test with level 1 posing the least difficult, and level 3 the most difficult. Additionally, there are five primary rules that are essential with this test. It is recommended that before examiners administer this test, they read over the manual, which can be found on the test website.

After completing the WCPA activity, a semi structured interview is conducted in which the client is asked to reflect on their performance to assess their level of self-awareness. This functional cognition assessment can be useful in the skilled nursing setting to identify any functional deficits that can impact a client’s participation in ADLs and IADLs. If deficits are identified, occupational therapy practitioners can educate staff and family members on modifications and essential cuing needed by skilled nursing clients to perform self-care tasks and leisure activities.

There is growing research on the WCPA for different ages, conditions, countries, and settings. Most psychometric studies of the WCPA have focused on adolescents with special needs. A study of Swedish adults with executive function problems examined test-retest reliability on 3 administrations of the assessment and found
moderate intraclass correlation coefficients (0.42–0.66) between the first two test occasions and moderate to excellent coefficients between the second and third administration (0.65–0.91) (Holmqvist et al., 2019). These findings suggest that several administrations of the WCPA may be necessary to obtain accurate results.

The Performance Assessment of Self-Care Skills (PASS) is currently a free assessment available to all occupational therapy practitioners (Holm et al., 2008). It can be used to evaluate self-care skills of most clients, regardless of the medical condition or setting. The PASS consists of twenty-six subtests assessing functional mobility, basic activities of daily living, instrumental activities of daily living with a cognitive concentration, and instrumental activities of daily living with a physical concentration. These subtests can be used together, or they can be administrated as stand-alone components. Scoring on the ratings of the PASS results in three performance scores: independence, safety, and adequacy of the task. The occupational therapy practitioner scores each portion of the subtest by rating the level of assistance required, safety, and activity completion.

The PASS is used to assess an individual’s ability to complete ADLS and IADLs safely and independently. In a study by Ciro et al., (2015), the difference in observed performance of activities of daily living and self-reported satisfaction with social role performance was compared between individuals with mild cognitive impairment and age and gender-matched controls. Results showed that PASS scores were lower on adequacy scores in individuals with mild cognitive impairments as compared to the control group.

Significance and Innovation
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Occupational therapy evaluation of functional cognition has the potential to provide valuable information on an individual's ability to participate in meaningful occupations safely. Whether occupational therapy practitioners define themselves as researchers, educators, or clinicians, they have a responsibility to advocate for assessments and interventions that address functional cognition in all practice settings. It is important that occupational therapy practitioners recognize the need for functional cognition assessments and interventions to address performance problems and educate other professionals on how to use this information to interact with and care for clients (Giles et al., 2020).

Currently, many methods used to assess cognition in skilled nursing settings primarily focus on cognitive deficits without linking them to occupational performance. For example, the assessment may indicate a problem with memory, but does not provide information about how this may impact the clients’ performance of everyday activities. By evaluating functional cognition, occupational therapy practitioners can more accurately identify needed supports, living environment options, and compensatory methods, modifications, or safety techniques needed to improve quality of life and safety for clients. This information is valuable for health professionals working with older adults, their families, and other caregivers.

The goal of these knowledge translation projects is to educate, inform, and advocate for the need to assess functional cognition consistency in occupational therapy practice. Each project targets a unique audience of future and current occupational therapy practitioners, both locally in the state of South Dakota and nationally, who are members of the American Occupational Therapy Association.
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Functional cognition should be a focus in a variety of settings including skilled nursing facilities. It can help determine a client’s level of safety and independence in occupational performance. The results of functional cognition assessments can be used to educate the entire interprofessional team, caregivers, and residents’ families for optimal discharge coordination and long-term planning, as functional cognition relates to everyday activities.

Aims

1) Increase awareness of functional cognition assessments that are appropriate for skilled nursing facilities by offering a continuing education session for members of a state occupational therapy association.

2) Strengthen content on functional cognition assessments and interventions in occupational therapy curricula by developing an educational module for an entry-level occupational therapy graduate program.

3) Increase application of functional cognition assessments in skill nursing by developing a case study for an occupational therapy practice magazine.
Chapter 2. Functional Cognition Assessments in Skilled Nursing Facilities: A Knowledge Translation Project for the South Dakota Occupational Therapy Association

Knowledge Translation Project Aim:
Increase awareness of functional cognition assessments that are appropriate for skilled nursing facilities by offering a continuing education session for members of a state occupational therapy association.

Title:
The Importance of Implementing Functional Cognition Assessments to Older Adults in the Skilled Nursing Facilities

Description:
The goal of this thirty-minute virtual presentation was to educate occupational therapy practitioners on the importance of implementing functional cognition assessments in the skilled nursing setting as part of a comprehensive evaluation of a client’s performance and environmental contexts. The virtual presentation was pre-recorded on April 28th, 2020 and sent to the SDOTA committee member chair. This presentation will be available as a continuing education course for SDOTA members with an interest in older adults in skilled nursing facilities.

Approach:
The intended audiences for this presentation were occupational therapy practitioners and occupational therapy students who were members of the South Dakota Occupational Therapy Association. A slide presentation was created to provide information about functional cognition assessments and interventions that are
appropriate for the older adult population in skilled nursing settings. A case study was used to illustrate the discussed assessments.

Due to the recent COVID-19 pandemic, a pre-recorded virtual presentation was the most appropriate method for this presentation. The SDOTA continuing education committee member and I communicated about the presentation objectives and format. This presentation was pre-recorded and sent to the committee members for final approval.

**Learning Objectives:**

At the conclusion of this presentation, participants were able to:

- Describe functional cognition and its importance to occupational therapy practitioners and students.
- Understand the importance of a functional cognition framework.
- Describe different functional cognition assessments that can be used to evaluate functional cognition among older adults in the skilled nursing facility setting.

**Evidence of Approach used:**

I am a member of the South Dakota Occupational Therapy Association. I reached out to the president of the association and requested the contact information for the committee members who are responsible for coordinating annual conferences and continuing education courses. The president and a committee member responded indicating their interest in having a functional cognition presentation for professional development. A communication log is summarized in Appendix A.3.

**Evaluation Method:**
A survey of participants will be administrated through Qualtrics to evaluate perceived achievement of the presentation’s learning objectives and instructional methods. A Likert scale will be used on the ten-question survey. A link to the survey is embedded in the virtual presentation.
Appendix A.1. Slide Presentation

The Importance of Implementing Functional Cognition Assessments of Older Adults in the Skilled Nursing Setting

Logan Reinhiiller, MOT OTR/L

A doctoral project submitted in partial fulfillment of the requirements for the Doctor of Occupational Therapy, St. Catherine University, St. Paul Minnesota

Learning Objectives

• Describe functional cognition and its importance to occupational therapy practitioners and students
• Understand the importance of a functional cognition framework
• Describe different functional cognition assessments for older adults in the skilled nursing setting.

Case Study: Brian

• Brian, a 72-year-old male, was recently admitted to a skilled nursing setting secondary to Alzheimer’s disease.
• Prior to admission, Brian was living alone on the first floor of an apartment complex and ambulated with a four-wheeled walker. He received Meals-on-Wheels one time a day and was able to complete simple meals in the microwave without difficulty. He hasn’t driven in the past five years due to poor peripheral vision but was able ambulate to the local grocery store as needed.
• Since admission to the skilled nursing setting, staff had noticed a significant decline with dressing, toilet hygiene, and bed mobility. Nursing staff were able to reach out to Brian’s primary doctor to get an occupational therapy order to evaluate decline in activities of daily living.

Brian’s Occupational Profile

Reason for seeking services:
• Decline with ADLs

Occupations in which Brian is successful:
• Ambulation with 4WW, Simple meal preparation

Personal Interests & values:
• BINGO, Cards, Church, Socializing in Men’s Group

Occupational history:
• Widowed, College Baseball Player, Retired high school math teacher, father of 4

(AOTA, 2014)
**Brian’s Occupational Profile**

**Performance Patterns:**
- Church 2x per week, Men’s Group 1x per week, early riser, typically shaves every morning, likes to read the paper after breakfast, enjoys afternoon activities with peers

**Environment & Context**
- Supports: Staff identified decline; OT referral for evaluation
- Barriers:
  - Social/virtual (family lives far away and wife is deceased; is not currently participating in groups),
  - Physical (not oriented to room set-up),
  - Cultural (has not attended church since admission),
  - Temporal (no longer has an ADL routine),

**Brian’s Goals:**
- Return to prior level of function with dressing, toileting, and meaningful occupations

**What is Functional Cognition?**

“The ability to use and integrate thinking and performance skills to accomplish complex everyday activities” (Giles et al, 2017, p. 1)

**History of Cognition**
- Performance Based Testing
  - Behavioral Assessment of the Dysexecutive Syndrome (Wilson et al, 1996)
  - MET II (Morrison et al, 2013)
  - Performance Assessment of Self-Care Skills (Rogers & Holm, 1989; Rogers et al, 2016)
  - The Kitchen Task Assessment (Baum & Edwards, 1993)
  - The Executive Function Performance Test (Baum et al, 2013)

**Why is functional cognition important in occupational therapy practice?**
- Safety and participation with ADLs and IADLs (AOTA, 2015)
- Accurate discharge recommendations based on performance
- Environmental interactions vs. isolation of cognitive deficits

**Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014**
- IMPACT Act of 2014 (AOTA, 2015)
- Opportunity of Occupational Therapy Practitioners (AOTA, 2015)

**Older Adults in Skilled Nursing Settings (SNF)**
- Types of Conditions (Healthy Aging, 2020)
  - Dementia
  - Depression
- Impact on Occupational Performance
AOTA & Functional Cognition

- Necessary to identify cognitive impairments that challenge a client’s ability to accomplish real-world tasks (AOTA, 2020)
- Functional cognition = occupational therapy
  - Performance level & Occupational Performance

Functional Cognition Framework

Cognitive-Functional Evaluation Framework (Hartman-Maeier, Katz, Baum, 2009)

- 5 Domains
  - Cognitive occupational narrative
  - Cognitive factors
  - Occupational Performance
  - Self-Assessment and beliefs
  - Environmental factors
- 3 Methods
  - Interviews
  - Self-reports and informant reports
  - Performance-based assessments

New Functional Cognition Intervention Codes: 2020

- No longer accepted: G0515 & 97127
- Different codes are no longer needed for different payers
- New codes: 97129 & 97130
  (AOTA, 2020)

Functional Cognition Assessments

- The Executive Function Performance Test (Baum et al., 2008)
- Weekly Calendar Planning Activity (Toglia & White, 2019)
- Performance Assessment of Self-Care Skills (Holm et al., 2008)

The Executive Function Performance Test (EFPT)

- Executive function
- 4 basic living tasks
- Components & Domains
- Scoring: Calculate highest level of cueing in the 5 domains

Test can be found here:
https://www.ot.wustl.edu/about/resources/executive-function-performance-test-
efpt-308
(Baum et al., 2008)
**Weekly Calendar Planning Activity (WCPA)**

- **Population Validity Evidence**
  - Discriminant validity among participants with MS and cognitive impairments
  - Concurrent validity with a standardized measure of EF and a functional cognitive measure (Toglia & White, 2019)

- **Reliability evidence**
  - Interrater reliability with college students with and without ADHD
  - High interrater reliability for total accuracy scores of at-risk youth (Toglia & White, 2019)

- **Test can be found here:**
  - [https://multicontext.net/weekly-calendar-planning-activity](https://multicontext.net/weekly-calendar-planning-activity)

**Performance Assessment of Self-Care Skills (PASS)**

- **Population**
  - Both men and women from late adolescence through later adulthood, regardless of mental or psychiatric diagnosis or developmental condition

- **Validity evidence**
  - The construct validity of the PASS measurement was established with factor analysis and Cattell’s scree test and the construct validity of the 26 core items was confirmed with Rasch analysis.
  - Construct validity was also confirmed with known-groups differences. (Chisholm, 2005; Rogers et al., 2013)

- **Reliability evidence**
  - Interrater reliability in the Clinic and Home versions ranged from 92% to 95%; for independence, 93% to 97%; for safety, and 88% to 90% for adequacy (Chisholm, 2005; Rogers et al., 2013)

- **Test can be found here:**
  - [PASS@shrs.pitt.edu](https://multicontext.net/weekly-calendar-planning-activity)

**Functional Cognition Interventions**

- **Global Strategy Learning & Awareness Approach**
  - Improve awareness of cognitive process (Giles, 2017)
  - Example: Bill Paying (IADL) or Tooth Brushing (ADL)
  - Brian’s morning routine with grooming (Giles, 2017)

- **Domain-Specific Strategy Training**
- **Cognitive Retraining Embedded in Functional Activity**
- **Specific Functional Skills Training**
- **Environmental Modifications & Use of Assistive Technology** (Giles, 2017)
FUNCTIONAL COGNITION AND SKILLED NURSING

Intervention Ideas: Domain-Specific Strategy Training

• Teaching strategies versus being taught task itself
• Example: Navigation throughout facility
  • Visual Cuing, awareness and orientation of personal space

(Giles, 2017)

Intervention Ideas: Cognitive Retraining Embedded in Functional Activity

• Context of activity
• Example: Routines and schedules in SNF

(Giles, 2017)

Intervention Ideas: Specific Functional Skills Training

• Severe cognitive impairments
• “Working around” cognitive impairments
• Example: Dressing (repetitive training; adaptive equipment; supervision or curing)

(Giles, 2017)

Intervention Ideas: Environmental Modifications & Use of Assistive Technology

• Modifications & Adaptations
• Example: Visual Schedules, Bed Rails, Safety Frame

(Giles, 2017)

What is the problem and what can occupational therapists do???

• ADVOCATE!!
• Challenge Medicare denials of functional cognition
• Push the boundaries of our own clinical thinking
• New data collection with focused approach to care
• BE READY TO EDUCATE
  • Methods of assessment
  • Evidence knowledge
  • Professional skill

Evaluation Method Survey

THANK YOU FOR ATTENDING THIS FUNCTIONAL COGNITION VIRTUAL PRESENTATION. PLEASE FOLLOW THE LINK AND COMPLETE THE SATISFACTION SURVEY.
HTTPS://QTRIAL2019Q4AZ1.AZ1.QUALTRICS.COM/JFE/FORM/SV_9MQ4AHQEOMERUV7
The Importance of Implementing Functional Cognition Assessments of Older Adults in the Skilled Nursing Setting

Logan Reinhiller, MOT OTR/L

A doctoral project submitted in partial fulfillment of the requirements for the Doctor of Occupational Therapy, St. Catherine University, St. Paul Minnesota

Narration:
This knowledge translation project was developed for members of the South Dakota Occupational Therapy Association, including occupational therapy practitioners, occupational therapy assistants, and occupational therapy students. The purpose was to discuss the importance of implementing functional cognition assessments and interventions into daily occupational therapy practice in the skilled nursing setting.
Learning Objectives

• Describe functional cognition and its importance to occupational therapy practitioners and students
• Understand the importance of a functional cognition framework
• Describe different functional cognition assessments for older adults in the skilled nursing setting.

Narration:
There are three learning objectives for South Dakota Occupational Therapy Association (SDOTA) members with an interest for older adults in the skilled nursing facility setting.
Case Study: Brian

- Brian, a 72-year-old male, was recently admitted to a skilled nursing setting secondary to Alzheimer’s disease.
- Prior to admission, Brian was living alone on the first floor of an apartment complex and ambulated with a four-wheeled walker. He received Meals-on-Wheels one time a day and was able to complete simple meals in the microwave without difficulty. He hasn’t driven in the past five years due to poor peripheral vision but was able ambulate to the local grocery store as needed.
- Since admission to the skilled nursing setting, staff had noticed a significant decline with dressing, toilet hygiene, and bed mobility. Nursing staff were able to reach out to Brian’s primary doctor to get an occupational therapy order to evaluate decline in activities of daily living.

Narration:
A case study will be used throughout this presentation to help students learn about how functional cognition assessments can be used in applicable situations.
Brian’s Occupational Profile

Reason for seeking services:
• Decline with ADLs

Occupations in which Brian is successful:
• Ambulation with 4WW, Simple meal preparation

Personal interests & values:
• BINGO, Cards, Church, Socializing in Men’s Group

Occupational history:
• Widowed, College Baseball Player, Retired high school math teacher, father of 4

(AOTA, 2014)

Narration:

Brian is seeking occupational therapy services to address decline with ADLs, including dressing, toileting, and bed mobility. He continues to be successful with functional mobility using 4WW. Prior to admission to SNF, he was also successful with completion of simple meal preparation using the microwave. He enjoys participating in meaningful occupations with his church group including BINGO and cards. He also attended Men’s Group and church services two times a week. Brian was married to his wife, Joyce, for 50 years until she had passed away from breast cancer four years ago. He and Joyce raised four children together, all of whom work throughout the country, so he is only able to see them on holidays and communicate over the phone. He attended college pursuing a bachelor’s degree in mathematics while participating in college baseball. He was one of the only left-hand pitchers of his time. Brian had a precise routine when living in his apartment. He would wake up early every morning and make a fresh pot of coffee. While the coffee was brewing, he would shower and shave. He would then fix up toast and oatmeal and enjoy his breakfast next to his kitchen window where he could listen to the birds. After he finished the dishes from breakfast, he would enjoy another cup of coffee in his den and read the newspaper, using his adaptive magnifying glass to help with his vision deficit. He attended Men’s Group every Tuesday afternoon and usually played BINGO and cards 3-4 times per week. Since admission to the nursing home, he has experienced barriers in his environment and contexts. He is no longer participating in groups, is not familiar where staff put things in his room, is not familiar with the nursing home church services, and no longer has a morning routine. Brian would like to return to prior level of function with ADLs and meaningful occupations.
Narration:
Brian is seeking occupational therapy services to address decline with ADLs, including dressing, toileting, and bed mobility. He continues to be successful with functional mobility using 4WW. Prior to admission to SNF, he was also successful with completion of simple meal preparation using the microwave. He enjoys participating in meaningful occupations with his church group including BINGO and cards. He also attended Men’s Group and church services two times a week. Brian was married to his wife, Joyce, for 50 years until she had passed away from breast cancer four years ago. He and Joyce raised four children together, all of whom work throughout the country, so he is only able to see them on holidays and communicate over the phone. He attended college pursuing a bachelor’s degree in mathematics while participating in college baseball. He was one of the only left-hand pitchers of his time. Brian had a precise routine when living in his apartment. He would wake up early every morning and make a fresh pot of coffee. While the coffee was brewing, he would shower and shave. He would then fix up toast and oatmeal and enjoy his breakfast next to his kitchen window where he could listen to the birds. After he finished the dishes from breakfast, he would enjoy another cup of coffee in his den and read the newspaper, using his adaptive magnifying glass to help with his vision deficit. He attended Men’s Group every Tuesday afternoon and usually played BINGO and cards 3-4 times per week. Since admission to the nursing home, he has experienced barriers in his environment and contexts. He is no longer participating in groups, is not familiar where staff put things in his room, is not familiar with the nursing home church services, and no longer has a morning routine. Brian would like to return to prior level of function with ADLs and meaningful occupations.
What is Functional Cognition?

“The ability to use and integrate thinking and performance skills to accomplish complex everyday activities” (Giles et al, 2017, p. 1)

Narration:
Gordon Giles (2017) defines functional cognition as, “The ability to use and integrate thinking and performance skills to accomplish complex everyday activities".
History of Cognition

- Performance-Based Testing
  - Behavioral Assessment of the Dysexecutive Syndrome (Wilson et al, 1996)
  - MET-R (Morrison et al, 2013)
  - Performance Assessment of Self-Care Skills (Rogers & Holm, 1989; Rogers et al, 2016)
  - ADL-focused Occupation-Based Neurobehavioral Evaluation (Arnadottir, 1990, 2011)
  - The Kitchen Task Assessment (Baum & Edwards, 1993)
  - The Executive Function Performance Test (Baum et al, 2013)

Narration:
Claudia Allen was one of the first therapists to recognize a need for a standardized cognition assessment. She developed the Allen Cognitive Level Scales and Cognitive Disabilities Model in 1985. In 1991, the first version of the Multiple Errands Test (METs) was created. The original assessment concentrated on navigating a shopping area, performing what seems to be simple tasks, and develop their own solutions to task performance while under constraint of unfamiliar rules (Shallice, Burgess, 1991). This was the beginning of performance-based tests.
Why is functional cognition important in occupational therapy practice?

- Safety and participation with ADLs and IADLS (AOTA, 2015)
- Accurate discharge recommendations based on performance
- Environmental interactions vs. isolation of cognitive deficits

Narration:
Functional cognition implementation is important for many reasons. The assessments and interventions of functional cognition help the therapist and interprofessional team understand the safety and participation of activities of daily living, such as dressing, toileting, and mobility. It also helps identify proper discharge plans based on the level of safety and performance. By implementing functional cognition assessments and interventions, therapist can advocate for appropriate discharge options and levels of assistance needed for optimal independence, safety, and performance with self-care tasks. Functional cognition assessments are different from other traditional assessments, as it encourages environmental interactions and participation verses isolating the specific cognitive deficits. Brian was diagnosed with Alzheimer’s Disease prior to admission to the SNF. He has been receiving total assistance with dressing and toilet hygiene since arrival and staff are concerned with this significant decline. The environmental interactions, problem-solving skills, and unfamiliarity of routine may be impacting his performance. A functional cognition assessment would help identify the supports and barriers.
Narration:
IMPACT Act of 2014 monitors the payment of Medicare post acute care settings, such as skilled nursing facilities, long term care hospitals, home health settings, and inpatient rehabilitation hospitals. (AOTA, 2015). Occupational therapists have a unique role with this Act. By completing a functional cognition screen, an impairment may be noted, which would prompt further assessment and a referral for skilled occupational therapy services. By completing occupational therapy with a concentration on functional cognition, therapists would be able to contribute to the prediction of level of assistance with cares, proper resources required, and the continued need of therapy, if appropriate. This would avoid preventable hospital re-admissions and achieve positive outcomes for the residents and the facilities as well. (AOTA, 2015).
Older Adults in Skilled Nursing Settings (SNF)

- Types of Conditions (Healthy Aging, 2020)
  - Dementia
  - Depression
- Impact on Occupational Performance

Narration:
Skilled nursing facilities are inpatient rehabilitation centers that are staffed with trained medical professionals 24 hours a day. Conditions and impairments that are common in skilled nursing settings include: hearing and vision impairments, mental conditions, and physical impairments. Dementia and depression are the most common conditions in SNFs. Dementia is the most common deficit that impacts more than half of residents in a skilled nursing setting (Health in Aging, 2020). Residents also have difficulty with occupational performance due to isolation in bedroom or unfamiliar environment and increased assistance provided for dressing and toileting from skilled nursing staff (such as certified nursing assistants). Residents are typically slower moving, some more than others during a specific portion of the day. Due to slow-paced occupational performance, staff have a tendency to assist with cares more than the resident needs for time-sensitive schedules, like meals, showers, or bedtime.
AOTA & Functional Cognition

- Necessary to identify cognitive impairments that challenge a client’s ability to accomplish real-world tasks (AOTA, 2020)
- Functional cognition = occupational therapy
  - Performance level & Occupational Performance

Narration:
According to AOTA (2015) assessment of functional cognition is necessary to identify cognitive impairments that challenge a client’s ability to accomplish real-world tasks. Functional cognition is embedded in the Occupational Therapy Practice Framework, as it looks at performance, participation, and safety with meaningful occupations and activities of everyday living, which is why it is so important that occupational therapy practitioners emphasize it in their scope of practice.
Functional Cognition Framework

Cognitive-Functional Evaluation Framework
(Hartman-Maeier, Katz, Baum, 2009)

- 5 Domains
  - Cognitive occupational narrative
  - Cognitive factors
  - Occupational Performance
  - Self-Awareness and Beliefs
  - Environmental Factors
- 3 Methods
  - Interviews
  - Self-Reports and informant reports
  - Performance-Based Assessments

Narration:
This framework provides context on how there are multiple sources used for functional cognition that can be used when developing a treatment plan in a skilled nursing facility. Skilled observations of occupational performance are not enough. Five domains and three methods were created to paint the full picture of functional cognition. A cognitive occupational narrative is the client’s perception of their own cognition and how this impacts their daily occupational performance. This would be where the therapist can utilize the AOTA occupational profile template. It is important to note that if the client is having difficulty with their own narrative, a family member or friend who knows the client well can step in and fill the gaps. Cognitive factors can include, but are not limited to, problem-solving strategies, executive functioning, recall, sequencing, initiation, or orientation. Screening tools may be used to identify possible cognitive factor deficits, such as the Mini Mental State Examination or the Montreal Cognitive Assessment, although it is important to note that these screening tools do not assess or screen for functional cognitive performance, therefore additional testing is appropriate. Occupational performance looks at the performance of a task. This is a complex portion of the framework, as there are multiple methods to evaluate performance. This would be where performance-based testing and functional cognition assessments are used. Therapists will look at the level of assistance, the amount of errors, the behaviors and problem-solving methods, or the time it takes to complete the task. Self-awareness and beliefs are the client’s awareness of their cognition and how this impacts their performance. Self-reports and interviews would be used in this section. The last domain is environmental factors, which have a crucial impact on functional cognition and occupational performance. The client’s bedroom, chapel, dining area, restroom, and hallway can support or hinder performance. Self-reports, interviews, skilled observations, and performance-based tests can all be used to assess the hinderance of environmental factors for a resident in a skilled nursing setting.
New Functional Cognition Intervention Codes: 2020

- No longer accepted: G0515 & 97127
  - Different codes are no longer needed for different payers
- New codes: 97129 & 97130

(AOTA, 2020)

Narration:
Functional cognition intervention codes are used when occupational therapy practitioners document and bill for their services. (AOTA, 2020). 97129 code is for therapeutic interventions that focus on cognitive function and compensatory strategies to manage the performance of an activity. This code would be used for the initial fifteen minutes of functional cognition interventions. 97130 would be used for each additional 15 minutes. It will serve as an add on and will need to be billed in addition to the 97129 code. It cannot be billed alone.
Functional Cognition Assessments

- The Executive Function Performance Test (Baum et al., 2008)
- Weekly Calendar Planning Activity (Toglia & White, 2019)
- Performance Assessment of Self-Care Skills (Holm et al., 2008)

Narration:
This presentation will introduce three functional cognition assessments, all reliable and valid for older adults, that would be appropriate to administer to older adults in the skilled nursing facility.
The Executive Function Performance Test (EFPT)

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Population</th>
<th>Validity Evidence</th>
<th>Reliability evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Executive Function Performance Test</td>
<td>Alzheimer's disease, Parkinson's Disease, MS, TBI, stroke, spinal cord injury, and psychiatric disorders</td>
<td>Predictive validity was determined (Baum et al, 2008)</td>
<td>Good to excellent interrater reliability has been demonstrated among patients with stroke (Baum et al, 2008)</td>
</tr>
</tbody>
</table>

(Baum et al., 2008)

Narration:
The Executive Function Performance Test (EFPT) is both a reliable and valid functional cognition assessment. It can be administered to a variety of populations, as seen above.
The Executive Function Performance Test (EFPT)

- Executive function
- 4 basic living tasks
- Components & Domains
- Scoring: Calculate highest level of cueing in the 5 domains
  - Sum these values to create scores for each subtask (Baum et al., 2008)

Test can be found here:
(Baum et al., 2008)

Narration:
Carolyn Baum, Dorothy Farrar-Edwards, Anna Boon, and Timothy Wolf created the Executive Function Performance Test. This functional cognition assessment suits the following populations: Alzheimer's disease, Parkinson's Disease, MS, TBI, stroke, spinal cord injury, and psychiatric disorders. People need executive functions to support adaptive behaviors, generate problem-solving strategies, maintain and update goals, monitor the consequences of actions, and apply prior knowledge to anticipate future events (Miyake & Shah, 1999). There are three purposes of this functional cognition assessment that are beneficial for occupational therapy practitioners to administer to older adults in the skilled nursing setting. These purposes include: The EFPT serves three purposes are to determine which executive functions are impaired, to determine an individual's capacity for independent functioning, and to determine the amount of assistance necessary for task completion (Baum et al., 2008). 4 basic living tasks: Simple cooking, telephone use, medication management, bill payment (Baum et al., 2008) Components: Initiation, Organization, Sequencing.Judgement and Safety, Completion. There are six levels of cueing with scores of 0-5: no cue, indirect verbal guidance, gestural guidance, direct verbal assistance, physical assistance, and the test administrator does the step for the person. If the administrator does not use all four subtests, he or she would report the subtest scores for the subtests that were completed, and not the total score for the entire assessment.
**Weekly Calendar Planning Activity**

<table>
<thead>
<tr>
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<th>Population</th>
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</thead>
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<tr>
<td>Weekly Calendar Planning Activity</td>
<td>Individuals with possible executive functioning deficits including: stroke, TBI, Brain tumor, MS, Mild cognitive impairment, Parkinson’s Disease, Cancer, renal or cardiac disease, COPD, Lupus, RA, Diabetes, Autism, Learning disabilities, ADHD, Cerebral Palsy, Schizophrenia, Substance abuse, Bipolar disorder, depression, concussion, PTSD, community-dwelling older adults</td>
<td>Discriminant validity among participants with MS and cognitive impairments Concurrent validity with a standardized measure of EF and a functional-cognitive measure (Toglia &amp; White, 2019)</td>
<td>Interrater reliability with college students with and without ADHD High interrater reliability for total accuracy scores of at-risk youth (Toglia &amp; White, 2019)</td>
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</tbody>
</table>

(Toglia & White, 2019)

**Narration:**

The Weekly Calendar Planning Activity (WCPA) is both a reliable and valid functional cognition assessment. It can be administered to a variety of populations, as seen above.
Weekly Calendar Planning Activity (WCPA)

- Executive Functioning
- Levels of difficulty
- 5 Golden Rules
- 4 areas of scoring
- After task interview

Test can be found here:
- [https://multicontext.net/weekly-calendar-planning-activity](https://multicontext.net/weekly-calendar-planning-activity)

(Toglia & White, 2019)

Narration:

This assessment is appropriate for individuals with possible executive functioning deficits including: stroke, TBI, Brain tumor, MS, Mild cognitive impairment, Parkinson’s Disease, Cancer, renal or cardiac disease, COPD, Lupus, RA, Diabetes, Autism, Learning disabilities, ADHD, Cerebral Palsy, Schizophrenia, Substance abuse, Bipolar disorder, depression, concussion, PTSD, community-dwelling older adults. This assessment again looks at executive functioning. The five primary domains of this assessment include: planning, organizing, inhibition, working memory, and flexibility. Additionally, this assessment observes the client’s use of cognitive strategy, which can be defined as “a mental plan of action that helps a person to learn, problem-solve, and perform” (Toglia et al., 2012, p. 227). There are three levels of difficulty with this assessment. The first level is the least difficult. This level has an organized checklist of appointments, a cue to the checklist is available, and preplanning is not required. The second level has an unorganized list of appointments and cues are not provided. Additionally, preplanning and reorganizing is required. The third, most difficult level has a paragraph of appointments with irrelevant information included. It also requires sorting out relevant information and preplanning. It is important to review the online manual prior to administering the WCPA. The administrator should also decide which level of difficulty would be the most appropriate prior to conduction of the assessment. Lastly, it is important to understand the five golden rules, which are as follows: Leave the specified day free; Do not cross out appointments once they are entered; Inform the examiner when it is a specified time; Do not respond to distracting questions from the examiner and Inform the examiner when finished. After completing the assessment, there is an interview to give the client an opportunity to self-reflect on their experience. The assessment is scored by four specific error codes as well as the rules that were followed, mentioned in previous slide. Self-awareness is an important portion of this assessment, which is why the task interview is so important.
Performance Assessment of Self-Care Skills

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<tr>
<td>Performance Assessment of Self-Care Skills</td>
<td>Both men and women from late adolescence through later adulthood, regardless of mental or psychiatric diagnosis or developmental condition</td>
<td>The construct validity of the PASS measurement was established with factor analysis and Cattell’s scree test and the construct validity of the 26 core items was confirmed with Rasch analysis. Construct validity was also confirmed with known-groups differences. (Chisholm, 2005; Rogers et al, 2013)</td>
<td>Interobserver reliability in the Clinic and Home versions ranged from 92% to 96% for independence, 93% to 97% for safety, and 88% to 90% for adequacy (Chisholm, 2005; Rogers et al, 2013)</td>
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(Holm et al., 2008)

Narration:
The Performance Assessment of Self-Care Skills (PASS) is both a reliable and valid functional cognition assessment. It can be administered to a variety of populations, as seen above.
Performance Assessment of Self-Care Skills (PASS)

• Clinic & Home version
• 26 subtests
• Scoring: level of independence, safety, and adequacy
• Test can be found here:
  • PASS@shrs.pitt.edu

(Holm et al., 2008)

Narration:
This assessment is appropriate for both men and women from late adolescence through later adulthood, regardless of mental or psychiatric diagnosis or developmental condition. It has both a home and clinic version with 26 different subtests, which can be used together or stand alone. Scoring levels have three components including independence, safety, and adequacy. It is a free assessment for all occupational therapy practitioners after completing a survey. This survey can be located after initiating a search of the website listed above. There are four primary portions of the 26 items. Functional mobility includes bed mobility, stair use, toilet mobility and management, bathtub and shower mobility, and indoor walking. The basic activities of daily living include oral hygiene, trimming toenails, and dressing. The cognitive instrumental activities include shopping (money management, bill paying my check, mailing bills, telephone use, medication management, obtaining information from the media visually and auditory, flashlight repair, home safety, playing bingo, oven and stove top use, and use of sharp utensils. The physical instrumental activities include taking out the garbage and key use, changing bed linens, sweeping, and cleaning up after a meal. There are three portions of scoring for each subtest: independence, safety, and adequacy. When scoring the “independence” portion of each subtest, look for the double-underlined action phrase, such as “opens second pill bottle with ease” as an indicator. If cueing or physical guidance is provided, this will be documented with the level number. The score sheet is specific with where to document what number, but it is important to know what to look for prior to administering the test. To score the safety of each subtest, refer to the safety data portion of the score sheet, which is where shaded boxes. If the administer notices an “unsafe observation” a check will go in the shaded box. Further documentation of observation can be written at the end of the sheet for administer reference. Adequacy scoring looks at both the process and the quality. Some of the errors that may be noted with this section include a client’s demonstration with imprecision in carrying out the subtask action, lacking economy of effort, or misses a step in the process of the subtask.
Functional Cognition Interventions

- Global Strategy Learning & Awareness Approach
- Domain-Specific Strategy Training
- Cognitive Retraining Embedded in Functional Activity
- Specific Functional Skills Training
- Environmental Modifications & Use of Assistive Technology (Giles, 2017)

Narration:
Global strategy learning focuses on improving awareness of cognitive processes and assisting clients to develop their own compensatory approaches to function as safely and independently as possible. Domain-specific strategy training focuses on teaching clients strategies to manage specific perceptional or cognitive deficits, verses being taught the task itself. In cognitive retraining, cognitive processes are addressed within the context of the activity. For specific functional training skills clients with more severe cognitive impairments, OTs focus on improving a functional skill by working around the cognitive deficit to achieve a self-care or community living task. The last intervention is implementing environmental modifications and use of assistive technology. (Giles, 2017, p. 1)
**Intervention Idea: Global Strategy Learning & Awareness Approach**

- Improve awareness of cognitive process (Giles, 2017)
- Example: Bill Paying (IADL) or Tooth Brushing (ADL)
- Brian’s morning routine with grooming

(Giles, 2017)

**Narration:**
This intervention focuses on improving awareness of cognitive processes and assisting clients to develop their own compensatory approaches to function as safely and independently as possible. This would be an appropriate intervention to use when the therapist and Brian problem-solve a new morning routine. Brian is no longer making his own breakfast or preparing coffee but can still have access to the newspaper. The therapist would have to assess the safety with shaving and grooming at sink to see if these tasks are still safe for Brian to complete without supervision.
Narration:
This intervention focuses on teaching clients strategies to manage specific perceptual or cognitive deficits, versus being taught the task itself. Brian would benefit from this intervention strategy when navigating throughout bedroom and facility. Due to Brian’s vision and functional cognition deficits, the therapist could implement visual cues to help Brian be more independent in room. The therapist provide feedback to help Brian organize his room in a way to increase awareness and orientation of personal space.
Intervention Ideas: Cognitive Retraining Embedded in Functional Activity

- Context of activity
- Example: Routines and schedules in SNF

(Giles, 2017)

Narration:
In cognitive retraining, cognitive processes are addressed within the context of the activity. The therapist could use this intervention when developing routines and schedules to help Brian achieve social and meaningful occupations, such as attending church services, BINGO, or card activities. Brian may benefit from a larger clock in room with an alarm to help orient him to time and accommodate for vision impairment.
**Intervention Ideas: Specific Functional Skills Training**

- Severe cognitive impairments
- “Working around” cognitive impairments
- Example: Dressing (repetitive training; adaptive equipment; supervision or curing) 

(Giles, 2017)

**Narration:**
For clients with more severe cognitive impairments, occupational therapy practitioners focus on improving functional skill, “working around” the cognitive impairment to address the needed self-care or community living skills. The therapist could have Brian practice repetitive training with his four-wheeled walker in bedroom, using visual tape for proper walker positioning on his floor as needed (environmental modification), to help cue Brian on safety techniques. Cuing, adaptive equipment, and supervision with ADLs might also be included in this intervention with more severe cognitive impairments.
**Intervention Ideas: Environmental Modifications & Use of Assistive Technology**

- Modifications & Adaptations

- Example: Visual Schedules, Bed Rails, Safety Frame

(Giles, 2017)

**Narration:**

Environmental modifications and simplifications are a component of most of the approaches described. Part of the process of OT intervention involves addressing the complexity of what the person needs to do and altering environmental contexts to enhance the match between the client’s abilities and environmental demands. The therapist may need to rearrange the furniture in Brian’s bedroom to help resemble previous apartment set-up. Clothing and grooming items should also be set-up in a way that is familiar to Brian.
What is the problem and what can occupational therapists do???

• ADVOCATE!!
  • Challenge Medicare denials of functional cognition
  • Push the boundaries of our own clinical thinking
    • New data collection with focused approach to care
• BE READY TO EDUCATE
  • Methods of assessment
  • Evidence knowledge
  • Professional skill

(AOTA, 2016)

Narration:
It is important that occupational therapy practitioners advocate for functional cognition. There are many ways to do this. For example, Medicare should pay for functional cognition interventions, and if they do not, it is critical to challenge those denials. Practitioners should understand the Medicare guidelines. Practitioners must collect data that measures functional cognition to help CMS understand and value these interventions. We have the knowledge, the evidence, and the methods to appropriately evaluate and intervene with functional cognition.
Thank you for your attendance. Please take a few minutes and complete the evaluation survey.
Questions??

Logan Reinhiller, MOT OTR/L  ljreinhiller168@stkates.edu  loganjaide14@gmail.com
References

References

Appendix A.3. Evidence of Approach: SDOTA Communication Log

Below is my initial email to the president of South Dakota Occupational Therapy Association.

Hi Maria,
My name is Logan Reinhiller and I work at Sanford Acute PRN. I am also concluding my post professional doctorate at St. Catherine University. I wanted to reach out to you about SDOTA and the upcoming conference this fall. Can you provide me the information of the committee member in charge of coordinating speakers and what the conference outline will entail? My doctorate proposal concentrates on the implementation of functional cognition assessment and screenings to older adults in skilled nursing facilities. I know this years' conference is probably too late to submit a Call for Papers, but wanted to design my final project as if it would be, and perhaps we can keep in touch in the future about if you'd be interested in this sort of presentation for upcoming events.
Thanks so much!
Logan Reinhiller, MOT OTR/L

Maria replied the next day and provided the contact information of Mackenzie and Joni, the committee chairs. Below is my email introducing myself to both members.

Hi Mackenzie & Joni,
I am currently completing my post-professional occupational therapy doctorate degree through St. Catherine University. I am completing my doctoral proposal, which includes a functional cognition presentation to occupational therapists in the area. I am wondering if this topic would be something SDOTA could consider for a presentation, and if so, what is the correct process and deadline? For example, I know AOTA requires a "call for papers" on some of their proposals. Is there an application I need to fill out and are there specific pieces of evidence, documentations, and slides you need from me?
I look forward to hearing back from you both. Thanks for your consideration.
Logan Reinhiller, MOT OTR/L

Mackenzie emailed me back with the following message.

Good morning Logan,
Thank you for reaching out and for your interest in sharing your project with SDOTA members! Unfortunately, our fall conference agenda is already full for this year; however, we were wondering if you would be interested in presenting virtually if we offered an additional continuing education opportunity to our members. We have recently started exploring these types of con ed options for
our members, and your project could be a good fit. This could be via recorded
lecture, Zoom or other technology alternatives.
I'm not sure the timeline of your capstone, but let me know if this is something
that you may be interested in. Please feel free to reach out with questions or we
can schedule a phone call as well if that would be helpful.
Thanks again for your interest!
Mackenzie Feldhacker, OTD, OTR/L, CLT-LANA
Assistant Professor
University of South Dakota
Department of Occupational Therapy
Sanford Coyote Sports Complex Rm 368
414 East Clark Street | Vermillion, SD 57069
(605)658-6374

Mackenzie followed up after I presented to USD OT Students. She is also a professor
for the OT department. Below is her email.

Hi Logan,
I'm sorry for my delay in getting back to you! Just as I'm sure you have been
hectic on the clinic side, transitioning to online learning has been a project and
taken lots of time and energy over the last month. Anyways, I just watched your
lunch and learn for the students – thanks for doing that!
I think you could easily record that presentation and have it posted for SDOTA
members to view. For your capstone requirements, does it need to be a live
virtual presentation or would the recording work?
Let me know your thoughts, and we can make more official plans. Thank you,
and, again, I apologize for taking so long to get back to you!

I was pleased to hear that Mackenzie was present for my educational USD OT
presentation. I responded with the following email.

Hi Mackenzie,
Thank you so much for joining me today!! I think a pre-recorded video would be
appropriate. I've created a similar presentation for both practitioners and students
that I can share with you if you'd like and make a pre-recording! Thanks so much
for getting back to me!! Also, if you have any feedback or things you'd like to be a
little different or more specific, please let me know! I'll link my SDOTA
presentation here and you we can talk into more detail about the next steps.
Thanks so much!!
Logan Reinhiller
Hi Logan,

My only suggestion would be to gear your presentation a bit more to practitioners who likely already have an understanding of functional cognition rather than students. You could perhaps do this by going into detail on a bit more of the “practice-based” things, such as billing, assessment/intervention procedures, etc. Also, if you considered making your presentation about 1 hour, this may give you more time to further explain some of these concepts in a higher-level format. Personally, I think it would be great for practitioners to hear about some of the newer functional cognition assessments that you described. I liked your content on the WCPA as I teach that in my theory course related to Toglia’s frame of reference.

Mackenzie added the following feedback from the other committee chair in another email.

Here are a few more suggestions to consider for your presentation from our other committee chair. I know that much of this you described verbally during your presentation but wanted to share her feedback with you:

- Can you add more information/explain more about the functional tests? How do they differ from Claudia Allen’s CPT? How long do they take to administer? Is it someone we could use in the hospital setting?
- Could you break your presentation down into inpatient vs subacute locations? Perhaps that would help to organize specific strategies or assessments for both settings.
- Provide functional cognition treatment examples to focus on deficit areas noted in the initial assessment (adding your case back in will achieve this)

With this feedback, I modified my original SDOTA presentation, completed the Zoom pre-recording, and sent the presentation to Mackenzie. There is not a date set for this recording to be viewable to SDOTA members.
Appendix A.4. Evaluation Method: SDOTA Survey

Logan Reinhiller – SDOTA Presentation Evaluation Survey

Please rate how well the contents of the presentation met the following learning objectives:

- Describe functional cognition and its importance to occupational therapy practitioners
  Not Met Partially Met Fully Met
- Understand the importance of a functional cognition framework
  Not Met Partially Met Fully Met
- Describe different functional cognition assessments
  Not Met Partially Met Fully Met

Feedback on Presenter:

The introduction gained my attention and interest and the topic was introduced clearly.

Strongly Agree Agree Neutral Disagree Strongly Disagree

The main points of the presentation were clear, supported, and organized.

Strongly Agree Agree Neutral Disagree Strongly Disagree

The delivery of the presentation was fluent.

Strongly Agree Agree Neutral Disagree Strongly Disagree

I feel comfortable with the implementation of functional cognition assessments based off the presentation material.

Strongly Agree Agree Neutral Disagree Strongly Disagree

What did the speaker do well?

What recommendations do you have for the speaker?
Chapter 3. Functional Cognition Assessments and Interventions for Skilled Nursing: A Knowledge Translation Project for Entry-Level Education

Knowledge Translation Project Aim:
Strengthen content on functional cognition assessments and interventions in occupational therapy curricula by developing an educational module for an entry-level occupational therapy graduate program.

Title:
Importance of Implementing Functional Cognition Assessments & Interventions with Older Adults in the Skilled Nursing Facilities

Description:
The purpose of this one-hour virtual course was to educate occupational therapy students on the importance of conducting functional cognition assessments and interventions for older adults in the skilled nursing setting. The learning module included a hands-on learning activity and case-study video to illustrate the discussed assessments. To accommodate a virtual-learning format, a score sheet for the bed mobility subtask of the Performance Assessment of Self-Care Skills was available for reference. Students were given the opportunity to observe functional cognition assessments during the module to gain a better understanding of the administration and scoring process.

This presentation defined functional cognition and the unique role of occupational therapy practitioners to address performance issues related to functional cognition. The Cognitive-Functional Evaluation Framework (Hartman-Maier et al., 2009) was introduced and students were educated on the five domains of functional cognition.
FUNCTIONAL COGNITION AND SKILLED NURSING

evaluation. After functional cognition was introduced and students learned about importance of evaluation, functional cognition assessments were reviewed. Lastly, there was an opportunity at the end of the presentation to administer and score a subtest from one of the functional cognition assessments described in the presentation.

**Approach:**

The audience for this presentation included entry-level occupational therapy doctoral students from the University of South Dakota. The presentation was supplemented with a one-hour slide presentation that addressed the importance of functional cognition assessments and interventions, populations and settings where these assessments can be used, and illustrative case examples. This session was structured as follows:

I. 45 minutes: Functional Cognition Slide Presentation: Introduction to functional cognition, functional cognition and occupational therapy profession, and functional cognition assessments and interventions in the skilled nursing settings

II. 10 minutes: Video illustrating administration of functional cognition assessment and scoring

III. 5 minutes: Survey evaluating learning outcomes

**Learning Objectives:**

At the conclusion of this presentation, the audience was able to:

1) Describe the benefits of implementing functional cognition assessments and interventions for older adults in the skilled nursing setting
FUNCTIONAL COGNITION AND SKILLED NURSING

2) Identify a variety of functional cognition assessments that can be used across different populations and settings

3) Describe the five functional cognition evaluation domains and methods of the Cognitive-Functional Evaluation Framework

4) Practice the implementation of a functional cognition assessment during a hands-on experience

Doctoral Level Accreditation Standards (AOTA, 2018) addressed by the presentation:

- **B.4.2.** Demonstrate clinical reasoning to evaluate, analyze, diagnose, and provide occupation-based interventions to address client factors, performance patterns, and performance skills.

- **B.4.3.** Utilize clinical reasoning to facilitate occupation-based interventions that address client factors. This must include interventions focused on promotion, compensation, adaptation, and prevention.

- **B.4.4.** Evaluate client(s)’ occupational performance, including occupational profile, by analyzing and selecting standardized and non-standardized screenings and assessment tools to determine the need for occupational therapy intervention(s). Assessment methods must take into consideration cultural and contextual factors of the client. Interpret evaluation findings of occupational performance and participation deficits to develop occupation-based intervention plans and strategies. Intervention plans and strategies must be client centered, culturally relevant, reflective of current occupational therapy practice, and based on available evidence.
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- B.4.5. Select and apply assessment tools, considering client needs, and cultural and contextual factors. Administer selected standardized and nonstandardized assessments using appropriate procedures and protocols. Interpret the results based on psychometric properties of tests considering factors that might bias assessment results (e.g., culture and disability status related to the person and context).

- B.4.9. Design and implement intervention strategies to remediate and/or compensate for functional cognitive deficits, visual deficits, and psychosocial and behavioral health deficits that affect occupational performance.

Evidence of Approach

I attended the University of South Dakota from 2011-2015 and graduated with a bachelor’s degree in Health Sciences. I made professional connections with some of the occupational therapy faculty members. I reached out to one of the professors and asked if he could assist me with the learning module presentation. We communicated via email and phone about the details of my presentation and how it could benefit entry-level OTD students. He introduced me to the Pi Theta Epsilon President who coordinated with the SOTA vice president to organize a “Lunch and Learn” event. Due to the COVID-19 pandemic, a virtual-lunch and learn was scheduled instead of a face-to-face presentation, which impacted the hands-on experience. The presentation took place on April 16th, 2020 from 12:00-1:00PM. Instead of a hands-on experience, I presented a video of the “Bed Mobility” subtask from the PASS functional assessment and went over information regarding how to score the independence, safety, and adequacy sections of the assessment. A copy of the slide presentation, PASS bed
FUNCTIONAL COGNITION AND SKILLED NURSING

mobility subtask score sheet, PASS bed mobility subtask administration sheet, and evaluation method survey were emailed to the SOTA vice president prior to the presentation and she distributed these materials to the students.

Evaluation Method:

The learning outcomes were evaluated using a survey to assess the effectiveness of the presentation on meeting the learning objectives. The students completed the survey and the student coordinator emailed the results to the presenter at the end of the presentation. I received positive feedback with this virtual experience, as scoring the PASS assessment can be complex and the students reported a greater understanding of the assessment after the virtual presentation was given. The SOTA vice-president was agreeable to collect the evaluation method surveys and anonymously send them back to me after the presentation was over. If this presentation had been completed face-to-face, I could have collected these surveys without a mediator.
Importance of Implementing Functional Cognition Assessments & Interventions to Older Adults in Skilled Nursing Facilities

Logan Reinholer, MOT OTR/L

A doctoral project submitted in partial fulfillment of the requirements for the Doctor of Occupational Therapy, St. Catherine University, St. Paul Minnesota

Case Study: Brian

- Brian, a 72-year-old male, was recently admitted to a skilled nursing setting secondary to Alzheimer’s disease.
- Prior to admission, Brian was living alone on the first floor of an apartment complex and ambulated with a four-wheeled walker. He received Meals-on-Wheels one time a day and was able to complete simple meals in the microwave without difficulty. He hasn’t driven in the past five years due to poor peripheral vision but was able ambulate to the local grocery store as needed.
- Since admission to the skilled nursing setting, staff had noticed a significant decline in activities of daily living.
- Due to these observations, staff identified decline; OT referral for evaluation
- OT assessment results (e.g., culture and disability status related to the person and context).
- OT referral was based on available evidence.
- OT referral was based on performance patterns.
- OT referral was based on performance skills.
- OT referral was based on contextual factors.
- OT referral was based on psychosocial and behavioral health deficits that affect occupational performance.

Reason for seeking services:
- Decline with ADLs

Occupations in which Brian is successful:
- Church 2x per week, Men’s Group 1x per week, early riser, typically shaves every morning, likes to read the paper after breakfast, enjoys afternoon activities with peers

Occupational History:
- Widowed, College Baseball Player, Retired high school math teacher, father of 4
- Outstanding academic performance, including exceptional AP scores by enrolling and succeeding in college-level courses
- Active community member and volunteer

Supports: Staff identified decline; OT referral for evaluation
- Supports: Staff identified decline; OT referral for evaluation
- Supports: Staff identified decline; OT referral for evaluation
- Supports: Staff identified decline; OT referral for evaluation
- Supports: Staff identified decline; OT referral for evaluation

Brain - Occupational Profile

Learning Objectives
- Describe the benefits of implementing functional cognition assessments and interventions for older adults in the skilled nursing facilities
- Identify a variety of functional cognition assessments that can be used across different populations
- Describe the five functional cognition evaluation methods of the Cognitive Functional Evaluation Framework
- Practice the implementation of a functional cognition assessment during a hands-on experience
- Developed evidence-based intervention plans and strategies. Intervention plans and strategies must include interventions focused on promotion, compensation, adaptation, and prevention.
- Intervention plans and strategies must include interventions focused on promotion, compensation, adaptation, and prevention.
- Intervention plans and strategies must include interventions focused on promotion, compensation, adaptation, and prevention.
- Intervention plans and strategies must include interventions focused on promotion, compensation, adaptation, and prevention.
- Intervention plans and strategies must include interventions focused on promotion, compensation, adaptation, and prevention.
What is Functional Cognition?

“The ability to use and integrate thinking and performance skills to accomplish complex everyday tasks” (Giles et al, 2017, p. 1)

History of Cognition

- Performance-Based Testing
- Behavioural Assessment of the Dysexecutive Syndrome (Wilson et al, 1996)
- MET-R (Morrison et al, 2013)
- Performance Assessment of Self-Care Skills (Rogers & Holm, 1989; Rogers et al, 2010)
- ADL-focused Occupation-Based Neurobehavioral Evaluation (Arnadottir, 1990, 2011)
- The Kitchen Task Assessment (Baum & Edwards, 1993)
- The Executive Function Performance Test (Baum et al, 2013)

Why is Functional Cognition Important?

- Safety and participation with ADLs and IADLs (AOTA, 2015)
- Accurate discharge recommendations based on performance
- Environmental interactions vs. isolation of cognitive deficits
- Case Study - Brian

Older Adults in Skilled Nursing Setting (SNF)

Skilled Nursing Facility: inpatient rehabilitation center staffed with trained medical professionals (AKA nursing home)

- Demographics
- Types of Conditions
- Impact on Occupational Performance

Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014

- IMPACT Act of 2014 (AOTA, 2015)
- Opportunity of Occupational Therapy Practitioners (AOTA, 2020)

Functional Cognition Intervention Codes: 2020 Update

- No longer accepting G0515 & 97127
- New Codes: 97129 & 97130 (AOTA, 2020)

- Case Study:
  - Brian’s functional cognition assessment took 30 minutes
  - Bill 97129 for the first 15 minutes (1 unit)
  - Bill 97130 for 15 minutes (1 units)
  - This session would have two units of billable time
American Occupational Therapy Association & Functional Cognition

- Necessary to identify cognitive impairments that challenge a client's ability to accomplish real-world tasks (AOTA, 2020)
- Functional cognition = occupational therapy
- Performance level & occupational performance

Functional Cognition Model

- 5 Domains
  - Cognitive occupational narrative
  - Cognitive factors
  - Occupational Performance
  - Self-Awareness and Beliefs
  - Environmental Factors
- 3 Methods:
  - Interviews
  - Self-Reports and informant reports
  - Performance-Based Assessments

Functional Cognition Assessments

- The Executive Function Performance Test (Baum et al., 2008)
- Weekly Calendar Planning Activity (Toglia & White, 2019)
- Performance Assessment of Self-Care Skills (Holm et al., 2008)

Functional Cognition Assessments

- The Executive Function Performance Test
- Weekly Calendar Planning Activity
- Performance Assessment of Self-Care Skills

The Executive Function Performance Test (EFPT)

<table>
<thead>
<tr>
<th>Executive Function Test</th>
<th>Alzheimer’s disease, Parkinson’s Disease, MS, TBI, stroke, spinal cord injury, and psychiatric disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Preparation</td>
<td>Predictive validity was determined (Baum et al., 2008)</td>
</tr>
<tr>
<td>Performance Execution</td>
<td>Good to excellent interrater reliability has been demonstrated among patients with stroke (Baum et al., 2008)</td>
</tr>
</tbody>
</table>

The Executive Function Performance Test (EFPT)

- Executive Function
- 4 Basic Living Tasks
- Components & Domains
- Scoring

Test can be found here: [https://www.ot.wustl.edu/about/resources/executive-function-performance-test-efpt-308](https://www.ot.wustl.edu/about/resources/executive-function-performance-test-efpt-308)
The Executive Function Performance Test (EFPT)

- Administration
- Specific step by step instructions
- Required supplies
- Setting: Clinic or Home-based

(Baum et al., 2008)

Weekly Calendar Planning Activity

- Executive Function (EF) Domains
  - Planning
  - Organizing
  - Inhibition
  - Working memory
  - Flexibility

(Toglia & White, 2019)

Weekly Calendar Planning Activity

- Purpose
- Levels of Difficulty
- 5 Golden Rules
- 4 Areas of Scoring
- Test can be found here:
  - https://multicontext.net/weekly-calendar-planning-activity

(Toglia & White, 2019)
**Weekly Calendar Planning Activity**

- Administration
- Forms and materials required
- **5 Golden Rules**
  - Leave the specified day free
  - Do not cross out appointments once they are entered
  - Inform the examiner when it is a specified time
  - Do not respond to distracting questions from the examiner
  - Inform the examiner when finished

(Toglia & White, 2019)

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**Performance Assessment of Self-Care Skills**

- Assessment population:
  - Both men and women from late adolescence through later adulthood, regardless of mental or psychiatric diagnosis or developmental condition

- Scoring:
  - The construct validity of the PASS measurement was established with factor analysis and Cattell’s scree test and the construct validity of the 26 core items was confirmed with Rasch analysis.
  - Construct validity was also confirmed with known-groups differences. (Chisholm, 2005; Rogers et al, 2013)

- Interobserver reliability in the Clinic and Home versions ranged from 92% to 96% for independence, 93% to 97% for safety, and 88% to 90% for adequacy (Chisholm, 2005; Rogers et al, 2013)

(Holm et al., 2008)

---

**Performance Assessment of Self-Care Skills (PASS)**

- Portions of test:
  - Functional mobility
  - Basic activities of daily living
  - Instrumental activities of daily living – cognitive emphasis
  - Instrumental activities of daily living – physical emphasis

- Each item of test is reliable and valid and can stand alone

(Holm & Rogers, 2008)

- You do not need to administer all 26 items

(Holm et al., 2008)

---

**Performance Assessment of Self-Care Skills (PASS)**

- Administration & Scoring
  - Free for all occupational therapy practitioners

- 3 scoring templates:
  - Independence
  - Safety
  - Adequacy

(Holm et al., 2008)
### Performance Assessment of Self-Care Skills (PASS)

- **Scoring: Independence**
  - Double-underlined action phrase = independence
  - Levels 1-3 = verbal assists
  - Levels 4-6 = gestural assists
  - Levels 7-9 = physical guidance
  - Check mark for each assist on documentation

- **Scoring: Safety**
  - Shaded Box = Unsafe Observations

- **Scoring: Adequacy**
  - 2 components (process and quality)
  - Quality column for check marks

- Refer to PASS bed mobility administration and score sheet
  - [Video of PASS Bed mobility administration](Holm et al., 2008)

### PASS – Bed Mobility Directions

### PASS – Bed Mobility Score Sheet
### Functional Cognition Interventions

- Global Strategy Learning & Awareness Approach
- Domain-Specific Strategy Training
- Cognitive Retraining Embedded in Functional Activity
- Specific Functional Skills Training
- Environmental Modifications & Use of Assistive Technology

(Giles, 2017)

### Intervention Idea: Global Strategy Learning & Awareness Approach

- Goal-Plan-Do-Check
- Example: Bill Paying (IADL) or Tooth Brushing (ADL)

### Intervention Ideas: Domain-Specific Strategy Training

- Teaching strategies versus being taught task itself
- Example: Educating client on adaptive equipment for dressing (e.g., reacher)

(Giles, 2017)

### Intervention Ideas: Cognitive Retraining Embedded in Functional Activity

- Context of activity (Giles et al., 2017)
- Example: Medication management

### Intervention Ideas: Specific Functional Skills Training

- Severe cognitive impairments
- "Working around" cognitive impairments
- Example: Dressing (repetitive training; adaptive equipment; supervision or curing)

(Giles, 2017)

### Intervention Ideas: Environmental Modifications & Use of Assistive Technology

- Modifications & Adaptations
- Example: Visual Schedules, Bed Rails, Safety Frame

(Giles, 2017)
Importance of Implementing Functional Cognition Assessments & Interventions to Older Adults in Skilled Nursing Facilities

Logan Reinhiller, MOT OTR/L

A doctoral project submitted in partial fulfillment of the requirements for the Doctor of Occupational Therapy, St. Catherine University, St. Paul Minnesota

Narration.

This knowledge translation project was developed for occupational therapy students. The purpose was to discuss the importance of implementing functional cognition assessments and interventions into future daily occupational therapy practice.
Learning Objectives

• Describe the benefits of implementing functional cognition assessments and interventions for older adults in the skilled nursing facilities
• Identify a variety of functional cognition assessments that can be used across different populations
• Describe the five functional cognition evaluation methods of the Cognitive-Functional Evaluation Framework
• Practice the implementation of a functional cognition assessment during a hands-on experience

Narration.

There are four learning objectives for occupational therapy students to identify by the end of this learning module.
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Slide 3

AOTA Accreditation Standards:

- **B.4.2.** Demonstrate clinical reasoning to evaluate, analyze, diagnose, and provide occupation-based interventions to address client factors, performance patterns, and performance skills.
- **B.4.3.** Utilize clinical reasoning to facilitate occupation-based interventions that address client factors. This must include interventions focused on promotion, compensation, adaptation, and prevention.
- **B.4.4.** Evaluate client(s)’ occupational performance, including occupational profile, by analyzing and selecting standardized and non-standardized screenings and assessment tools to determine the need for occupational therapy intervention(s). Assessment methods must take into consideration cultural and contextual factors of the client. Interpret evaluation findings of occupational performance and participation deficits to develop occupation-based intervention plans and strategies. Intervention plans and strategies must be client centered, culturally relevant, reflective of current occupational therapy practice, and based on available evidence.
- **B.4.5.** Select and apply assessment tools, considering client needs, and cultural and contextual factors. Administer selected standardized and nonstandardized assessments using appropriate procedures and protocols. Interpret the results based on psychometric properties of tests considering factors that might bias assessment results (e.g., culture and disability status related to the person and context).
- **B.4.9.** Design and implement intervention strategies to remediate and/or compensate for functional cognitive deficits, visual deficits, and psychosocial and behavioral health deficits that affect occupational performance.

Narration.

This presentation also meets the AOTA accreditation standards for entry-level occupational therapy doctorate students.
Case Study: Brian

- Brian, a 72-year-old male, was recently admitted to a skilled nursing setting secondary to Alzheimer’s disease.
- Prior to admission, Brian was living alone on the first floor of an apartment complex and ambulated with a four-wheeled walker. He received Meals-on-Wheels one time a day and was able to complete simple meals in the microwave without difficulty. He hasn’t driven in the past five years due to poor peripheral vision but was able ambulate to the local grocery store as needed.
- Since admission to the skilled nursing setting, staff had noticed a significant decline with dressing, toilet hygiene, and bed mobility. Nursing staff were able to reach out to Brian’s primary doctor to get an occupational therapy order to evaluate decline in activities of daily living.

Narration.

A case study will be used throughout this presentation to help students learn about how functional cognition assessments can be used in applicable situations.
Brian - Occupational Profile

Reason for seeking services:
• Decline with ADLs

Occupations in which Brian is successful:
• Ambulation with 4WW, Simple meal preparation

Personal interests & values:
• BINGO, Cards, Church, Socializing in Men’s Group

Occupational history:
• Widowed, College Baseball Player, Retired high school math teacher, father of 4

(AOTA, 2014)

Narration.

Brian is seeking occupational therapy services to address decline with ADLs, including dressing, toileting, and bed mobility. He continues to be successful with functional mobility using 4WW. Prior to admission to SNF, he was also successful with completion of simple meal preparation using the microwave. He enjoys participating in meaningful occupations with his church group including BINGO and cards. He also attended Men’s Group and church services two times a week. Brian was married to his wife, Joyce, for 50 years until she had passed away from breast cancer four years ago. He and Joyce raised four children together, all of whom work throughout the country, so he is only able to see them on holidays and communicate over the phone. He attended college pursuing a bachelor’s degree in mathematics while participating in college baseball. He was one of the only left-hand pitchers of his time. Brian had a precise routine when living in his apartment. He would wake up early every morning and make a fresh pot of coffee. While the coffee was brewing, he would shower and shave. He would then fix up toast and oatmeal and enjoy his breakfast next to his kitchen window where he could listen to the birds. After he finished the dishes from breakfast, he would enjoy another cup of coffee in his den and read the newspaper, using his adaptive magnifying glass to help with his vision deficit. He attended Men’s Group every Tuesday afternoon and usually played BINGO and cards 3-4 times per week. Since admission to the nursing home, he has experienced barriers in his environment and contexts. He is no longer participating in groups, is not familiar where staff put things in his room, is not familiar with the nursing home church services, and no longer has a morning routine. Brian would like to return to prior level of function with ADLs and meaningful occupations.
Brian - Occupational Profile (cont)

Performance Patterns:
- Church 2x per week, Men's Group 1x per week, early riser, typically shaves every morning, likes to read the paper after breakfast, enjoys afternoon activities with peers

Environment & Context
- Supports: Staff identified decline; OT referral for evaluation
- Barriers: social/virtual (family lives far away and wife is deceased; is not currently participating in groups), physical (not oriented to room set-up), culture (has not attended church since admission), temporal (no longer has an ADL routine),

Brian's Goals:
- Return to prior level of function with dressing, toileting, and meaningful occupations

(AOTA, 2014)

Narration.

Brian is seeking occupational therapy services to address decline with ADLs, including dressing, toileting, and bed mobility. He continues to be successful with functional mobility using 4WW. Prior to admission to SNF, he was also successful with completion of simple meal preparation using the microwave. He enjoys participating in meaningful occupations with his church group including BINGO and cards. He also attended Men’s Group and church services two times a week. Brian was married to his wife, Joyce, for 50 years until she had passed away from breast cancer four years ago. He and Joyce raised four children together, all of whom work throughout the country, so he is only able to see them on holidays and communicate over the phone. He attended college pursuing a bachelor’s degree in mathematics while participating in college baseball. He was one of the only left-hand pitchers of his time. Brian had a precise routine when living in his apartment. He would wake up early every morning and make a fresh pot of coffee. While the coffee was brewing, he would shower and shave. He would then fix up toast and oatmeal and enjoy his breakfast next to his kitchen window where he could listen to the birds. After he finished the dishes from breakfast, he would enjoy another cup of coffee in his den and read the newspaper, using his adaptive magnifying glass to help with his vision deficit. He attended Men’s Group every Tuesday afternoon and usually played BINGO and cards 3-4 times per week. Since admission to the nursing home, he has experienced barriers in his environment and contexts. He is no longer participating in groups, is not familiar where staff put things in his room, is not familiar with the nursing home church services, and no longer has a morning routine. Brian would like to return to prior level of function with ADLs and meaningful occupations.
What is Functional Cognition?

“The ability to use and integrate thinking and performance skills to accomplish complex everyday tasks” (Giles et al, 2017, p. 1)

Narration.

Functional cognition can be defined as the thinking and performing process that individuals experience when performing everyday activities of daily living. Case Study: Brian requires functional cognition when he socializes with peers, plays BINGO and card games, and even when he navigates with his walker throughout bedroom and facility. It is evident that Brian is having a difficult time with his functional cognition when completing dressing, bedroom mobility, and meaningful occupations.
History of Cognition

- Performance-Based Testing
  - Behavioral Assessment of the Dysexecutive Syndrome (Wilson et al, 1996)
  - MET-R (Morrison et al, 2013)
  - Performance Assessment of Self-Care Skills (Rogers & Holm, 1989; Rogers et al, 2016)
  - ADL-focused Occupation-Based Neurobehavioral Evaluation (Arnadottir, 1990, 2011)
  - The Kitchen Task Assessment (Baum & Edwards, 1993)
  - The Executive Function Performance Test (Baum et al, 2013)

Narration.

Claudia Allen was one of the first therapists to recognize a need for a standardized cognition assessment. She developed the Allen Cognitive Level Scales and Cognitive Disabilities Model in 1985. In 1991, the first version of the Multiple Errands Test (METs) was created. The original assessment concentrated on navigating a shopping area, performing what seems to be simple tasks, and develop their own solutions to task performance while under constraint of unfamiliar rules (Shallice, Burgess, 1991). This was the beginning of performance-based tests.
**Why is Functional Cognition Important?**

- Safety and participation with ADLs and IADLS (AOTA, 2015)
- Accurate discharge recommendations based on performance
- Environmental interactions vs. isolation of cognitive deficits
- Case Study - Brian

**Narration.**

Functional cogitation implementation is important for many reasons. The assessments and interventions of functional cognition help the therapist and interprofessional team understand the safety and participation of activities of daily living, such as dressing, toileting, and mobility. It also helps identify proper discharge plans based on the level of safety and performance. By implementing functional cognition assessments and interventions, therapist can advocate for appropriate discharge options and levels of assistance needed for optimal independence, safety, and performance with self-care tasks. Functional cognition assessments are different from other traditional assessments, as it encourages environmental interactions and participation verses isolating the specific cognitive deficits. Brian was diagnosed with Alzheimer’s Disease prior to admission to the SNF. He has been receiving total assistance with dressing and toilet hygiene since arrival and staff are concerned with this significant decline. The environmental interactions, problem-solving skills, and unfamiliarity of routine may be impacting his performance. A functional cognition assessment would help identify the supports and barriers.
Older Adults in Skilled Nursing Setting (SNF)

Skilled Nursing Facility: inpatient rehabilitation center staffed with trained medical professionals (AKA nursing home)

- Demographics
- Types of Conditions
- Impact on Occupational Performance

Narration.

Skilled nursing facilities are inpatient rehabilitation centers that are staffed with trained medical professionals 24 hours a day. SNFs are also known as nursing homes. Conditions and impairments that are common in skilled nursing settings include: hearing and vision impairments, mental conditions, and physical impairments. Dementia and depression are the most common conditions in SNFs. Dementia is the most common deficit that impacts more than half of residents in a skilled nursing setting (Health in Aging, 2020). Residents also have difficulty with occupational performance due to isolation in bedroom or unfamiliar environment and increased assistance provided for dressing and toileting from skilled nursing staff (such as certified nursing assistants). Residents are typically slower moving, some more than others during a specific portion of the day. Due to slow-paced occupational performance, staff have a tendency to assist with cares more than the resident needs for time-sensitive schedules, like meals, showers, or bedtime.
**Narration.**

IMPACT Act of 2014 monitors the payment of Medicare post acute care settings, such as skilled nursing facilities, long term care hospitals, home health settings, and inpatient rehabilitation hospitals. (AOTA, 2015). Occupational therapists have a unique role with this Act. By completing a functional cognition screen, an impairment may be noted, which would prompt further assessment and a referral for skilled occupational therapy services. By completing occupational therapy with a concentration on functional cognition, therapists would be able to contribute to the prediction of level of assistance with cares, proper resources required, and the continued need of therapy, if appropriate. This would avoid preventable hospital re-admissions and achieve positive outcomes for the residents and the facilities as well. (AOTA, 2015).
Functional Cognition Intervention Codes: 2020 Update

• No longer accepting G0515 & 97127
• New Codes: 97129 & 97130

(AOTA, 2020)

• Case Study:
  • Brian’s functional cognition assessment took 30 minutes
  • Bill 97129 for the first 15 minutes (1 unit)
  • Bill 97130 for 15 minutes (1 units)
  • This session would have two units of billable time

Narration.

Functional cognition intervention codes are used when occupational therapy practitioners document and bill for their services. (AOTA, 2020). 97129 code is for therapeutic interventions that focus on cognitive function and compensatory strategies manage the performance of an activity. This code would be used for the initial fifteen minutes of functional cognition interventions. 97130 would be used for each additional 15 minutes. It will serve as an add on and will need to be billed in addition to the 97129 code. It cannot be billed alone.
American Occupational Therapy Association & Functional Cognition

• Necessary to identify cognitive impairments that challenge a client’s ability to accomplish real-world tasks (AOTA, 2020)
• Functional cognition = occupational therapy
  • Performance level & occupational performance

Narration.

According to AOTA (2015) assessment of functional cognition is necessary to identify cognitive impairments that challenge a client’s ability to accomplish real-world tasks. Functional cognition is embedded in the Occupational Therapy Practice Framework, as it looks at performance, participation, and safety with meaningful occupations and activities of everyday living, which is why it is so important that occupational therapy practitioners emphasize it in their scope of practice.
Narration.

When referring to the Occupational Therapy Practice Framework (2014), client factors, performance skills, and approaches to interventions are primary components that focus on functional cognition. Performance skills are the client’s demonstrated abilities. For example, praxis capacities, such as imitating, sequencing, and constructing, affect a client’s motor performance skills. Cognitive capacities, such as perception, affect a client’s process performance skills and ability to organize actions in a timely and safe manner. Emotional regulation capacities can affect a client’s ability to effectively respond to the demands of occupation with a range of emotions. It is important to remember that many body functions underlie each performance skill. Brian has strong beliefs in his faith and currently he has not attended church services. Perhaps this change has impacted his functional cognition. Brian is also not completing his morning routine or meaningful occupations with peers, which includes many performance skills. There are many approaches to interventions that can be considered in this scenario. Due to Brian’s Alzheimer’s diagnosis, a modification approach with functional cognition activities may be appropriate for optimal occupational performance.
Functional Cognition Model


• 5 Domains
  • Cognitive occupational narrative
  • Cognitive factors
  • Occupational Performance
  • Self-Awareness and Beliefs
  • Environmental Factors

• 3 Methods
  • Interviews
  • Self-Reports and informant reports
  • Performance-Based Assessments

Narration.

This framework provides context on how there are multiple sources used for functional cognition that can be used when developing a treatment plan in a skilled nursing facility. Skilled observations of occupational performance are not enough. Five domains and three methods were created to paint the full picture of functional cognition. A cognitive occupational narrative is the client’s perception of their own cognition and how this impacts their daily occupational performance. This would be where the therapist can utilize the AOTA occupational profile template. It is important to note that if the client is having difficulty with their own narrative, a family member or friend who knows the client well can step in and fill the gaps. Cognitive factors can include, but are not limited to, problem-solving strategies, executive functioning, recall, sequencing, initiation, or orientation. Screening tools may be used to identify possible cognitive factor deficits, such as the Mini Mental State Examination or the Montreal Cognitive Assessment, although it is important to note that these screening tools do not assess or screen for functional cognitive performance, therefore additional testing is appropriate. Occupational performance looks at the performance of a task. This is a complex portion of the framework, as there are multiple methods to evaluate performance. This would be where performance-based testing and functional cognition assessments are used. Therapists will look at the level of assistance, the amount of errors, the behaviors and problem-solving methods, or the time it takes to complete the task. Self-awareness and beliefs are the client’s awareness of their cognition and how this impacts their performance. Self-reports and interviews would be used in this section. The last domain is environmental factors, which have a crucial impact on functional cognition and occupational performance. The client’s bedroom, chapel, dining area, restroom, and hallway can support or hinder performance. Self-reports, interviews, skilled
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observations, and performance-based tests can all be used to assess the hinderance of environmental factors for a resident in a skilled nursing setting.
Functional Cognition Assessments

- The Executive Function Performance Test (Baum et al., 2008)
- Weekly Calendar Planning Activity (Toglia & White, 2019)
- Performance Assessment of Self-Care Skills (Holm et al., 2008)

Narration.

This presentation will introduce three functional cognition assessments, all reliable and valid for older adults, that would be appropriate to administer to older adults in the skilled nursing facility.
The Executive Function Performance Test (EFPT) is both a reliable and valid functional cognition assessment. It can be administered to a variety of populations, as seen above.
Narration.

This assessment looks at the client’s executive function, which looks at working memory, problem-solving, and organizing thoughts. The four basic living tasks that are used in this assessment are: cooking, telephone use, medication management, and bill payment. This presentation will also talk about the components, domains, and scoring in more detail. Although cooking, medication management, and bill paying are no longer required for Brian since he has moved to the skilled nursing setting, it would still be appropriate to conduct for better discharge planning. It would also be beneficial to know his occupational performance with telephone use, as Brian’s family live throughout the country, and phone use is the primary means of communication. After completing the telephone use portion of the test, the therapist can create interventions to either compensate, modify, or retrain Brian’s potential cognitive deficits in order to improve communication with family members.
The Executive Function Performance Test (EFPT)

- Administration
  - Specific step by step instructions
  - Required supplies
  - Setting: Clinic or Home-based

(Baum et al., 2008)

Narration.

This assessment is free for occupational therapy practitioners. There are specific step by step directions, which can be found in the online manual along with the required supplies.
The Executive Function Performance Test (EFPT)

- Defining Components
  - Initiation
  - Organization
  - Sequencing
  - Judgement and safety
  - Completion

- Scoring:
  - Calculate highest level of cuing for each component

(Baum et al., 2008)

Narration.

There are five components that are scored with this assessment. For each task, the test administrator calculates the highest level of cues required for each component listed above. The administer then adds these values to create a score for each subtask. (Baum et al., 2008)
The Weekly Calendar Planning Activity (WCPA) is both a reliable and valid functional cognition assessment. It can be administered to a variety of populations, as seen above.
Weekly Calendar Planning Activity

• Purpose
• Levels of Difficulty
• 5 Golden Rules
• 4 Areas of Scoring

• Test can be found here:
  • https://multicontext.net/weekly-calendar-planning-activity

(Toglia & White, 2019)

Narration.

In the following slides, the purpose, levels of difficulty, golden rules, and areas of scoring will be discussed. This test can be available at cost by following the link above.
**Weekly Calendar Planning Activity**

- Executive Function (EF) Domains
  - Planning
  - Organizing
  - Inhibition
  - Working memory
  - Flexibility

(Toglia & White, 2019)

**Narration.**

The Weekly Calendar Planning Activity looks at the executive functioning. The five primary domains of this assessment include: planning, organizing, inhibition, working memory, and flexibility. Additionally, this assessment observes the client’s use of cognitive strategy, which can be defined as “a mental plan of action that helps a person to learn, problem-solve, and perform” (Toglia et al., 2012, p. 227).
There are three levels of difficulty with this assessment. The first level is the least difficult. This level has an organized checklist of appointments, a cue to the checklist is available, and preplanning is not required. The second level has an unorganized list of appointments and cues are not provided. Additionally, preplanning and reorganizing is required. The third, most difficult level has a paragraph of appointments with irrelevant information included. It also requires sorting out relevant information and preplanning.
Weekly Calendar Planning Activity

- Administration
  - Forms and materials required
- 5 Golden Rules
  - Leave the specified day free
  - Do not cross out appointments once they are entered
  - Inform the examiner when it is a specified time
  - Do not respond to distracting questions from the examiner
  - Inform the examiner when finished

(Toglia & White, 2019)

Narration.

It is important to review the online manual prior to administering the WCPA. The administrator should also decide which level of difficulty would be the most appropriate prior to conduction of the assessment. Lastly, it is important to understand the five golden rules.
Narration.

After completing the assessment, there is an interview to give the client an opportunity to self-reflect on their experience. The assessment is scored by four specific error codes as well as the rules that were followed, mentioned in previous slide. Self-awareness is an important portion of this assessment, which is why the task interview is so important. This assessment would be appropriate for Brian, as routine is such an important factor in his life. Perhaps with a new environment and the unfamiliarity of those around him, he has been having a more difficult time with having routines. By implementing this functional cognitive assessment, the therapist will be able to understand Brian’s self-awareness with his cognition, as well as his problem-solving and executive functioning while organizing and planning activities prompted in the assessment.
Performance Assessment of Self-Care Skills

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Population</th>
<th>Validity Evidence</th>
<th>Reliability evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Assessment of Self-Care Skills</td>
<td>Both men and women from late adolescence through later adulthood, regardless of mental or psychiatric diagnosis or developmental condition</td>
<td>The construct validity of the PASS measurement was established with factor analysis and Cattell’s scree test and the construct validity of the 26 core items was confirmed with Rasch analysis. Construct validity was also confirmed with known-groups differences. (Chisholm, 2005; Rogers et al, 2013)</td>
<td>Interobserver reliability in the Clinic and Home versions ranged from 92% to 96% for independence, 93% to 97% for safety, and 88% to 90% for adequacy (Chisholm, 2005; Rogers et al, 2013)</td>
</tr>
</tbody>
</table>

(Holm et al., 2008)

Narration.

The Performance Assessment of Self-Care Skills (PASS) is both a reliable and valid functional cognition assessment. It can be administered to a variety of populations, as seen above.
Performance Assessment of Self-Care Skills (PASS)

- Clinic & Home Version
- 26 Subtests
- Scoring

- Test can be found here:
  - PASS@shrs.pitt.edu

(Holm et al., 2008)

Narration.

There are two versions of this test, the clinic and home versions. This test also includes 26 subtests, which can be used together or scored alone. There are three categories of scoring each subtest. The PASS assessment is free for all occupational therapy practitioners.
Performance Assessment of Self-Care Skills (PASS)

- Portions of test:
  - Functional mobility
  - Basic activities of daily living
  - Instrumental activities of daily living – cognitive emphasis
  - Instrumental activities of daily living – physical emphasis

- Each item of test is reliable and valid and can stand alone
  (Holm & Rogers, 2008)
  - You do not need to administer all 26 items
  (Holm et al., 2008)

Narration.

There are four primary portions of the 26 items. Functional mobility includes bed mobility, stair use, toilet mobility and management, bathtub and shower mobility, and indoor walking. The basic activities of daily living include oral hygiene, trimming toenails, and dressing. The cognitive instrumental activities include shopping (money management, bill paying, my check, mailing bills, telephone use, medication management, obtaining information from the media visually and auditory, flashlight repair, home safety, playing bingo, oven and stove top use, and use of sharp utensils. The physical instrumental activities include taking out the garbage and key use, changing bed linens, sweeping, and cleaning up after a meal.
Performance Assessment of Self-Care Skills (PASS)

- Administration & Scoring
- Free for all occupational therapy practitioners
- 3 scoring templates:
  - Independence
  - Safety
  - Adequacy

(Holm et al., 2008)

Narration.

There are three portions of scoring for each subtest: independence, safety, and adequacy.
Narration.

When scoring the “independence” portion of each subtest, look for the double-underlined action phrase, such as “opens second pill bottle with ease” as an indicator. If cueing or physical guidance is provided, this will be documented with the level number. The score sheet is specific with where to document what number, but it is important to know what to look for prior to administering the test.
Narration.

To score the safety of each subtest, refer to the safety data portion of the score sheet, which is where shaded boxes. If the administer notices an “unsafe observation” a check will go in the shaded box. Further documentation of observation can be written at the end of the sheet for administer reference.
### Performance Assessment of Self-Care Skills (PASS)

- Scoring: Adequacy
- 2 components (process and quality)
  - Quality column for check marks

(Holm et al., 2008)

---

**Narration.**

Adequacy scoring looks at both the process and the quality. Some of the errors that may be noted with this section include a client’s demonstration with imprecision in carrying out the subtask action, lacking economy of effort, or misses a step in the process of the subtask.
Performance Assessment of Self-Care Skills (PASS)

- Refer to PASS bed mobility administration and score sheet
- [Video of PASS Bed mobility administration]

(Holm et al., 2008)

Narration.

The video included an occupational therapist administering the bed mobility portion of the PASS. After the video was played, the therapist advised the students to refer to the bed mobility score sheet and bed mobility administration sheet, both included in the pre-video email sent by the SOTA vice president.
Narration.

This picture shows the step by step directions on how to administer the bed mobility subtest. It also includes the scoring of each verbal instruction.
**Narration.**

This picture shows where to document the independence, safety, and adequacy data. The presenter also explained the sections into more detail, but referring to the double underlined action phrase for both the process and the independence sections and the single line quality phrase.
Functional Cognition Interventions

- Global Strategy Learning & Awareness Approach
- Domain-Specific Strategy Training
- Cognitive Retraining Embedded in Functional Activity
- Specific Functional Skills Training
- Environmental Modifications & Use of Assistive Technology

(Giles, 2017)

Narration.

Now that we’ve focused on what functional cognition assessments would be appropriate in the skilled nursing setting, we will now shift to the functional cognition interventions. In this presentation, five functional cognition intervention approaches will be discussed for Brian’s care planning.
**Intervention Idea: Global Strategy Learning & Awareness Approach**


- Example: Bill Paying (IADL) or Tooth Brushing (ADL)

**Narration.**

This intervention focuses on improving awareness of cognitive processes and assisting clients to develop their own compensatory approaches to function as safely and independently as possible. This would be an appropriate intervention to use when the therapist and Brian problem-solve a new morning routine. Brian is no longer making his own breakfast or preparing coffee but can still have access to the newspaper. The therapist would have to assess the safety with shaving and grooming at sink to see if these tasks are still safe for Brian to complete without supervision.
Intervention Ideas: Domain-Specific Strategy Training

• Teaching strategies versus being taught task itself
• Example: Educating client on adaptive equipment for dressing (e.g., reacher)

(Giles, 2017)

Narration.

This intervention focuses on teaching clients strategies to manage specific perceptual or cognitive deficits, versus being taught the task itself. Brian would benefit from this intervention strategy when navigating throughout bedroom and facility. Due to Brian’s vision and functional cognition deficits, the therapist could implement visual cues to help Brian be more independent in room. The therapist provide feedback to help Brian organize his room in a way to increase awareness and orientation of personal space.
In cognitive retraining, cognitive processes are addressed within the context of the activity. The therapist could use this intervention when developing routines and schedules to help Brian achieve social and meaningful occupations, such as attending church services, BINGO, or card activities. Brian may benefit from a larger clock in room with an alarm to help orient him to time and accommodate for vision impairment.
**Intervention Ideas: Specific Functional Skills Training**

- Severe cognitive impairments
- “Working around” cognitive impairments
- Example: Dressing (repetitive training; adaptive equipment; supervision or curing)

(Giles, 2017)

**Narration.**

For clients with more severe cognitive impairments, occupational therapy practitioners focus on improving functional skill, “working around” the cognitive impairment to address the needed self-care or community living skills. The therapist could have Brian practice repetitive training with his four-wheeled walker in bedroom, using visual tape for proper walker positioning on his floor as needed (environmental modification), to help cue Brian on safety techniques. Cuing, adaptive equipment, and supervision with ADLs might also be included in this intervention with more severe cognitive impairments.
Intervention Ideas: Environmental Modifications & Use of Assistive Technology

• Modifications & Adaptations
• Example: Visual Schedules, Bed Rails, Safety Frame

(Giles, 2017)

Narration.

Environmental modifications and simplifications are a component of most of the approaches described. Part of the process of OT intervention involves addressing the complexity of what the person needs to do and altering environmental contexts to enhance the match between the client’s abilities and environmental demands. The therapist may need to rearrange the furniture in Brian’s bedroom to help resemble previous apartment set-up. Clothing and grooming items should also be set-up in a way that is familiar to Brian.
Questions??

Logan Reinhiller, MOT OTR/L
ljreinhiller168@stkates.edu
loganjaide14@gmail.com
Evaluation Method

Please fill out the student satisfaction survey (located in email) to address student experience with virtual learning.

Narration.

Thank you for participating in this student satisfaction survey. Your answers will be used to improve the student experience.
References

References


Appendix B.3. Evidence of Approach: USD Communication Log

My communication began by reaching out to an occupational therapy professor from the University of South Dakota graduate program. Below is my initial email.

Hi Moses,
I hope all is well!! I’m currently concluding my post-professional OTD degree through St. Catherine University. My research interest includes the implementation of functional cognition assessments and screening tools. One of my knowledge translation ideas was to design an educational course to graduate students and colleagues. Would this be something USD would be interested in participating in?
Thanks so much for considering!
Logan Reinhiller, MOT OTR/L

Dr. Ikiugu and I spoke on the phone and I further explained my knowledge translation proposal. He then sent an email with the appropriate contacts who set up “Lunch and Learns”. Keri is president of the PTE and Nicole is the SOTA Vice President. Keri took the lead and responded to the email immediately and suggested that she put a poll on the OT Facebook page to gauge interest with scheduling a “Zoom Lunch and Learn”.

She requested a couple dates that I could be available from 12:00-1:00PM. Below is an email suggesting times to schedule the Lunch and Learn.

Good morning,
I think students will be able to attend a meeting over the noon hour any weekday! Some dates that we already have meetings include April 8, 14, and 15. Our semester ends on May 8, so I think any time in April would be ideal. Let us know what date/dates work best for you and then we can work on setting up the zoom conference and advertising for it!
Keri Kamphoff

We decided on April 16th, 2020 from 12:00-1:00PM. I created a scheduled Zoom meeting and sent the link and meeting ID to Keri. I also included the learning objectives, a presentation handout, PASS bed mobility score sheet, PASS bed mobility administer sheet, and the evaluation survey for Keri to provide ahead of time to the student audience.
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Appendix B.4. Evidence of Method: Survey

Logan Reinhiller – Educational Presentation Evaluation Survey

Please rate how well the contents of the presentation met the following learning objectives:

Describe the benefits of implementing functional cognition assessments and interventions for older adults in the skilled nursing setting

<table>
<thead>
<tr>
<th>Not Met</th>
<th>Partially Met</th>
<th>Fully Met</th>
</tr>
</thead>
</table>

Identify a variety of functional cognition assessments that can be used across different populations and settings

<table>
<thead>
<tr>
<th>Not Met</th>
<th>Partially Met</th>
<th>Fully Met</th>
</tr>
</thead>
</table>

Describe the five functional cognition evaluation domains and methods of the Cognitive-Functional Evaluation Framework

<table>
<thead>
<tr>
<th>Not Met</th>
<th>Partially Met</th>
<th>Fully Met</th>
</tr>
</thead>
</table>

Practice the implementation of a functional cognition assessment during a hands-on experience

<table>
<thead>
<tr>
<th>Not Met</th>
<th>Partially Met</th>
<th>Fully Met</th>
</tr>
</thead>
</table>

Feedback on Presenter:

The introduction gained my attention and interest and the topic was introduced clearly.

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

The main points of the presentation were clear, supported, and organized.

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

The delivery of the presentation was fluent.

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

I feel comfortable with the implementation of functional cognition assessments and interventions based off the presentation material.

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree
What did the speaker do well?

What recommendations do you have for the speaker?

General comments:
Appendix B.5. PASS Bed Mobility Administrator Sheet.

Task # H1. FM: Bed Mobility

HOME CONDITIONS: Bedroom area and
1. Bed, “as is”
2. Towel available to place on bed
3. Client, positioned in line with the foot of the bed, 2 feet out from the side, facing the bed

HOME INSTRUCTIONS:

“I need to have you show me how you get into bed, move in bed, and get out of bed. I have placed a towel on the end of the bed, so don’t worry about your shoes.”

(NOTE: If client is wearing glasses, have the Client remove them and place them in a safe location)

*Now, please stand here.* [Point, 2 feet out from the foot of the bed]

*Now, show me how you get into bed.* [Wait for response]

*Now, turn . . .
[depending on how Client is positioned ask client to turn to the opposite side, e.g.,]

***from your back to your stomach.*
***from your stomach to your back.*
***from your right side to your left side.*
***from your left side to your right side.*

*Now, show me how you get out of bed and stand up by the bed.* [Wait for response]
# Appendix B.6 PASS Bed Mobility Score Sheet

<table>
<thead>
<tr>
<th>Task #</th>
<th>Hf: Bed Mobility</th>
<th>Independence Data</th>
<th>Safety Data</th>
<th>Adequacy Data</th>
<th>Summary Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No Assistance</td>
<td>Partial</td>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>1.</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td>8</td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Total # of ATDs used:</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtasks**

1. **Lower self onto bed in a controlled manner (does not "play" down).**
2. **Adjust body position so mattress completely supports total body (prone, supine, sidelying).**
3. **Turn self and assure full degrees in a controlled manner (smooth movement, no false starts).**
4. **Rise self to sitting position on edge of bed in a controlled manner (does not "tauten" self upright).**
5. **Rise self of bed in a controlled manner (does not "rock" to gain momentum).**
6. **Consists of stages & rehearse & maintain balance (does not pull self up, does not hold onto bed or other objects).**
Chapter 4. Functional Cognition Assessments in Skilled Nursing Facilities: A Knowledge Translation Project Proposed for a Practice Magazine or Newsletter

Knowledge Translation Project Aim:

Increase application of functional cognition assessments in skilled nursing by developing a case study for an occupational therapy practice magazine.

Title:

Functional Cognition Assessments: Implications for Skilled Nursing Facilities

Description:

Dementia, mild cognitive impairments, decreased memory, increased agitation, and impaired executive functioning are a few cognitive deficits that older adults in skilled nursing homes demonstrate. These impairments may impact residents’ ability to perform everyday tasks such as getting dressed, using the restroom, and completing grooming activities. In order to address functional cognition, therapists are encouraged to use performance-based assessments. Functional cognition assessments are available to determine whether and how a client can safely participate in activities of daily living and instrumental activities of daily living. A variety of functional cognition assessments available, but it is important to understand what they specifically measure and how effective they are in assessing the cognitive impact of performance in daily living tasks.

This manuscript described functional cognitive assessments used with residents in skilled nursing settings, assisted living facilities, and independent living communities who have been referred to occupational therapy. It also described how findings from these assessments inform intervention planning to address the occupational
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performance needs of vulnerable populations. The manuscript also included practical examples of how these functional cognition assessments can be used, my professional experiences, lessons learned, and opportunities for occupational therapy professionals working in skilled nursing settings to be more involved in functional cognition assessments and interventions.

**Approach:**

A manuscript was written for submission to an occupational therapy magazine or newsletter. The purpose of the manuscript was to educate occupational therapy practitioners, researchers, educators, and students on the importance of functional cognition assessment for older adults in skilled nursing facilities. In the manuscript, functional cognition is discussed and a case study is used to illustrate the functional cognition evaluation process.

**Evidence of Approach:**

I initially reached out to the editor of *OT Practice Magazine* and proposed my article idea. He informed me that a recent article on this topic had recently been published in *OT Practice Magazine* and therefore he was not interested at that time. I reached out to the *Productive Aging-SIS Quarterly* editor with the same proposal. She thought this would be a great topic for an article in *SIS Quarterly*. Modifications to the article are necessary and publication is not guaranteed, however we will continue to work together the next nine-ten months to revise the article. The article will then be under peer review in January of 2021. If the manuscript is accepted, it will be published in spring 2021.

**Learning Objectives:**
The intended audience for this article is occupational therapy practitioners with an interest in productive aging. The objectives of the article are to:

1) Identify functional cognition assessments and interventions that may be used with older adults in a skilled nursing facility
2) Describe specific cognitive impairments and how safety can be measured with functional cognition assessments
3) Apply clinical reasoning in a case study and understand the benefits of implementing functional cognition assessments and interventions for safety, independence, and optimal discharge options in skilled nursing.

Evaluation Method:

I will submit the manuscripts to the Productive Aging-SIS Quarterly for peer review. The projected timeline is to submit the final draft of the manuscript by January 2021.
Abstract

Dementia, mild cognitive impairments, decreased memory, increased agitation, and impaired executive functioning are a few cognitive deficits that older adults in skilled nursing homes demonstrate. These impairments may impact residents’ ability to perform everyday tasks such as getting dressed, using the restroom, and completing grooming activities. In order to address functional cognition, therapists are encouraged to use performance-based assessments. Functional cognition assessments are available to determine whether and how a client can safely participate in activities of daily living and instrumental activities of daily living. A variety of functional cognition assessments available, but it is important to understand what they specifically measure and how effective they are in assessing the cognitive impact of performance in daily living tasks.

This manuscript described functional cognitive assessments used with residents in skilled nursing settings, assisted living facilities, and independent living communities who have been referred to occupational therapy. It also described how findings from these assessments inform intervention planning to address the occupational performance needs of vulnerable populations. The manuscript also included practical examples of how these functional cognition assessments can be used, my professional experiences, lessons learned, and opportunities for occupational therapy professionals.
working in skilled nursing settings to be more involved in functional cognition assessments and interventions.

**Learning Objectives**

- Identify functional cognition assessments and interventions that may be used with older adults in a skilled nursing facility
- Describe specific cognitive impairments and how safety can be measured with functional cognition assessments
- Examine a case study and understand the benefits of implementing functional cognition assessments and interventions for safety, independence, and optimal residential options.

**Introduction**

Functional cognition should be an integral part of occupational therapy practice as it is a client factor that impacts occupational participants, performance skills, and patterns. As Giles (2017, p. 1) asserted: “Functional cognition is known as the interaction of cognitive skills and self-care, and community living skills”. Additionally, impairments in functional cognition may influence a client’s safety and independence with performance of activities of daily living (ADLs).

Currently, the methods used to assess cognition in the skilled nursing setting isolate specific cognitive deficits. For example, the assessment may indicate a problem with memory, but does not provide information about how this may impact clients’ everyday living. Furthermore, functional cognition assessments and interventions can improve health and well-being outcomes. By identifying functional cognition levels, therapists can more accurately recommend discharge options while educating family
FUNCTIONAL COGNITION AND SKILLED NURSING members and caregivers on compensatory methods, modifications, or safety techniques to improve quality of life and safety for their loved ones.

**Occupational Therapy Practice in Skilled Nursing Facilities**

Policy changes in the Centers for Medicare and Medicaid Services (CMS) associated with the Improving Medicare Post-Acute Care Transformation (IMPACT) Act (AOTA, 2015) are providing opportunities for occupational therapy. AOTA has made recommendations to CMS to incorporate a performance-based screen for functional cognition (Giles et al., 2014). The current gap in occupational therapy practice in the skilled nursing setting is the lack of functional cognition assessment implementation for older adults. The IMPACT Act of 2014 requires that post-acute care (PAC) settings, such as long-term care hospitals, inpatient rehabilitation hospitals, skilled nursing facilities, and home health agencies, initiate specific criteria for performance of activities of daily living, such as self-care tasks, functional mobility, and functional cognition (Middleton et al., 2016). These standards are in place to ensure quality patient care and outcomes. Rehospitalization impacts the client, both physically and financially and is a reflection on the quality of care provided in some post-acute settings.

The cost of rehospitalization doubles for community-dwelling older adults with conditions that can be treated in PAC settings, such as long-term acute hospitals, skilled nursing facilities, home health care, or inpatient rehabilitation facilities (Middleton et al., 2016). By understanding a client’s functional status, which includes level of independence in mobility, self-care, and cognition, proper recommendations can be made for the level of care needed and the optimal living situation to prevent rehospitalization. An estimated 20% of residents are at risk of decreased quality of life
due to hospital readmission within thirty days of discharge (Buslovich & Kennedy, 2012; Herrin et al., 2015). One way to reduce rehospitalization rates in skilled nursing facilities would be to incorporate functional cognition assessments and interventions into occupational therapy plans of care for a more accurate depiction of a resident’s level of performance in self-care and mobility.

By completing performance-based functional cognition assessments with an emphasis on how cognitive deficits impact ADL and IADL performance, occupational therapy practitioners can develop interventions with a more accurate depiction of the cognitive capacity of older adults. Family members and caregivers, nursing staff, and interprofessional therapy teams can also be better educated on the residents’ needs in order to ensure optimal patient care and safety.

Occupational therapy practitioners in skilled nursing facilities often work with individuals living with neurodegenerative diseases, such as dementia. If an individual’s functional cognition score indicates that more assistance is needed for performance of activities of daily living, there are interventions and recommendations that occupational therapy practitioners can provide to increase safety, maximal participation, and quality of life for the resident. There are methods to promote functional cognition for individuals diagnosed with dementia and similar diagnoses.

**Cognitive-Functional Evaluation Framework (C-FE)**

The Cognitive-Functional Evaluation Framework (C-FE) was introduced by Hartman-Marier, Katz, and Baum (2009) to provide a systematic approach to evaluating the implications of cognitive deficits in everyday life (Wolf et al., 2019). The C-FE framework requires gathering data from multiple sources of information in order to
evaluate functional cognition and develop an intervention plan in a skilled nursing facility. Skilled observations of occupational performance are not enough. This framework identifies the following evaluation domains and evaluation methods. “The five domains are 1) the client’s cognitive occupational narrative, 2) cognitive factors, 3) functional cognition observed during occupational performance, 4) self-awareness and beliefs regarding cognitive deficits and functional cognition, and 5) evaluation of environmental factors” (Wolf et al., 2019). Methods of assessments include interviews, self-reports, and performance-based assessments.

A cognitive occupational narrative is the client’s perception of their own cognition and how it impacts their daily occupational performance. The AOTA occupational profile template is used to guide an interview to gather the occupational participation narrative (AOTA, 2014). It is important to note that if the client is having difficulty with their own narrative, a family member or friend who knows the client well can step in and fill in the gaps. Cognitive factors impacting performance that can be identified during the interview may include, but are not limited to, problem-solving strategies, executive functioning, recall, sequencing, initiation, or orientation. Screening assessments may then be used to identify more specific possible cognitive deficits, although it is important to note that these screening instruments do not assess functional cognition performance.

Occupational performance is evaluated at the level of task performance. The evaluation of occupational performance is a complex part of the framework, as there are multiple performance-based and functional cognition methods. Occupational therapy practitioners also evaluate the level of assistance needed in performance of various
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occupations, number of errors made during performance, behaviors, problem-solving methods, and time it takes to complete a task.

Self-awareness and beliefs refer to the client’s awareness of their cognition and how it impacts their performance. Self-reports and interviews may be used in this section. The last domain evaluated in the Framework is the environmental factors, that may have a considerable impact on functional cognition and occupational performance. The client’s bedroom, chapel, dining area, restroom, and hallway can support or hinder performance. Self-reports, interviews, skilled observations, and performance-based tests may be used to assess the environmental supports and barriers to a resident’s performance in a skilled nursing setting.

The Cognitive-Functional Evaluation Framework (Hartman-Marier et al., 2014) operationalizes many of the constructs in the Occupational Therapy Practice Framework (AOTA, 2014). Areas assessed using this framework include the contexts, client factors, and performance skills that support or limit occupational performance. The Cognitive-Functional Evaluation Framework was intended to evaluate both the client and their environment and how the environmental supports and barriers impact functional cognition and participation in residential settings. It is important to use this framework in occupational therapy practice, especially with older adults in the skilled nursing facilities, as it can help determine the level of safety and independence in performance within their environment. The C-FE Framework is also beneficial in assessing the functional cognition of individuals residing in a skilled nursing facility short term while being rehabilitated for potential discharge to the community. The occupational therapy practitioner can use this framework to generate information that
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can help the interprofessional team understand the client’s functional cognitive capacity and readiness to return home.

**Functional Cognition Assessment Example: Performance Assessment of Self-Care Skills**

The Performance Assessment of Self-Care Skills (PASS) is a readily available assessment for occupational therapy practitioners. This measure has been described as appropriate for all individuals, regardless of the medical condition or setting (Holm, Rogers & Hemphill-Pearson, 2008).

The PASS has twenty-six subtests that concentrate on functional mobility, basic activities of daily living, instrumental activities of daily living with a cognitive concentration, and instrumental activities of daily living with a physical concentration. These subtests can be used together, or they can stand alone, which are still considered reliable and valid. The PASS has three portions of scoring: independence, safety, and adequacy of the task. The occupational therapy practitioners scores each portion of the subtest by the level of assistance required, unsafe observations, and completion of the activity.

When scoring the “independence” portion of each subtest, look for the double-underlined action phrase, such as “opens second pill bottle with ease” as an indicator. If cueing or physical guidance is provided, this will be documented with the level number. The score sheet is specific with where to document what number, but it is important to know what to look for prior to administering the test. To score the safety of each subtest, refer to the safety data portion of the score sheet, which is where shaded boxes. If the administer notices an “unsafe observation” a check will go in the shaded
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box. Further documentation of observation can be written at the end of the sheet for administer reference. Lastly, adequacy scoring looks at both the process and the quality. Some of the errors that may be noted with this section include a client’s demonstration with imprecision in carrying out the subtask action, lacking economy of effort, or missing a step in the process of the subtask.

Case Study

Mark Jones, a 72-year-old male, was recently admitted to a skilled nursing setting secondary to Alzheimer’s disease. Prior to admission, Mark was living alone on the first floor of an apartment complex and ambulated with a four-wheeled walker. He received Meals-on-Wheels one time a day and was able to complete simple meals in the microwave without difficulty. He hasn’t driven in the past five years due to poor peripheral vision but was able ambulate to the local grocery store as needed. Since admission to the skilled nursing setting, staff had noticed a significant decline with dressing, toilet hygiene, and bed mobility. Nursing staff contacted Mark’s primary physician to obtain an order for an occupational therapy evaluation.

During the initial evaluation, the occupational therapy practitioner completed skilled observations, an occupational profile (AOTA, 2014) and a geriatric depression scale assessment (Yesavage, J, 1988). Through observations and assessments, the occupational therapy practitioner was able to identify supports and barriers in Mark’s life. The brief occupational profile indicated Mark was seeking occupational therapy services to address decline with ADLs, including dressing, toileting, and bed mobility. He continues to be successful with functional mobility using 4WW. Prior to admission to SNF, he was also successful with completion of simple meal preparation using the
microwave. He enjoys participating in meaningful occupations with his church group including BINGO and cards. He also attended Men’s Group and church services two times a week. Mark was married to his wife, Joyce, for 50 years until she had passed away from breast cancer four years ago. He and Joyce raised four children together, all of whom work throughout the country, so he is only able to see them on holidays and communicate over the phone. He attended college pursuing a bachelor’s degree in mathematics while participating in college baseball. He was one of the only left-hand pitchers of his time. Mark had a precise routine when living in his apartment. He would wake up early every morning and make a fresh pot of coffee. While the coffee was brewing, he would shower and shave. He would then fix up toast and oatmeal and enjoy his breakfast next to his kitchen window where he could listen to the birds. After he finished the dishes from breakfast, he would enjoy another cup of coffee in his den and read the newspaper, using his adaptive magnifying glass to help with his vision deficit. He attended Men’s Group every Tuesday afternoon and usually played BINGO and cards 3-4 times per week. Since admission to the nursing home, he has experienced barriers in his environment and contexts. He is no longer participating in groups, is not familiar where staff put things in his room, is not familiar with the nursing home church services, and no longer has a morning routine. The Geriatric Depression Scale score was 6/15, indicating strong possibility of depression, as Mark gets bored easily, is not satisfied with his current life situation, and no longer participates in meaningful activities.

Table 1

*Occupational Profile (AOTA, 2014): Case Study of Mark*
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<table>
<thead>
<tr>
<th>Profile Area</th>
<th>Performance Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason for seeking services:</td>
<td>Decline with ADLs (dressing, toileting, bed mobility)</td>
</tr>
<tr>
<td>Occupations in which Mark is successful:</td>
<td>Ambulation with 4WW, simple meal preparation</td>
</tr>
<tr>
<td>Person interests &amp; values:</td>
<td>BINGO, cards, church, socializing in Men’s Group</td>
</tr>
<tr>
<td>Occupational history:</td>
<td>Widowed, college baseball player, retired high school math teacher, father of 4</td>
</tr>
<tr>
<td>Performance Patterns:</td>
<td>Church 2x per week, Men’s Group 1x per week, early riser, typically shaves every morning, likes to read the paper after breakfast, enjoys afternoon activities with peers</td>
</tr>
<tr>
<td>Environment &amp; contexts:</td>
<td>Supports: Staff identified decline; OT referral for evaluation Barriers: social/virtual (family lives far away and wife is deceased, is not currently participating in groups), physical (not oriented to room set-up), culture (has not attended church since admission), temporal (no longer has an ADL routine)</td>
</tr>
<tr>
<td>Mark’s goals:</td>
<td>Return to prior level with dressing, bed mobility, and toileting</td>
</tr>
</tbody>
</table>
Table 2

*Evaluation of an Older Adult in a Skilled Nursing Facility: Case Study of Mark*

<table>
<thead>
<tr>
<th>C-FE Framework (Baum et al., 2009)</th>
<th>Screenings &amp; Assessments</th>
<th>Case Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive Occupational Narrative</td>
<td>Occupational Profile (AOTA, 2014)</td>
<td>Mark is no longer participating in meaningful occupations, such as BINGO, cards, church, or ADLs.</td>
</tr>
<tr>
<td>Cognitive Factors</td>
<td>Saint Louis University Mental Status (SLUMS) Examination (Morley, J. E., &amp; Tumosa, N, 2002)</td>
<td>Mark is not oriented to current time and has delayed short term recall based on SLUMS cognitive screening tool. He scored 24/30, indicating possibility of Mild Cognitive Impairment</td>
</tr>
<tr>
<td>Functional Cognition Observed During Occupational Performance</td>
<td>Performance Assessment of Self-Care Skills (Holm, Rogers &amp; Hemphill-Pearson, 2008).</td>
<td>The OT observed Mark experiencing pain in left shoulder when completing dressing and bed mobility. Mark was able to complete these ADLs, but was not safe due to pain and environmental factors. The OT has recommended adaptive equipment, such as a reacher and safety frame. The OT also recommended rearranging room to prevent Mark from laying on left side when getting into bed.</td>
</tr>
<tr>
<td>Self-Awareness and Beliefs</td>
<td>Self-Reports Geriatric Depression Scales (Yesavage, J. A., 1988)</td>
<td>The Geriatric Depression Scale was 6/15, indicating strong possibility of depression, as Mark is no longer participating in meaningful occupations, feels bored easily, isolates, and feels hopeless at times.</td>
</tr>
<tr>
<td>Evaluation of Environmental Factors</td>
<td>Performance Assessment of Self-Care Skills (Holm, Rogers &amp; Hemphill-Pearson, 2008).</td>
<td>Based on the PASS assessment, the occupational therapy practitioner has recommended room modifications to address functional transfer and mobility ease to compensate for left upper extremity chronic pain. The therapist noted recommendations such as using a right-side bed rail, right-side toilet paper holder, and right-side end table next to recliner in bedroom.</td>
</tr>
</tbody>
</table>
The occupational therapy practitioner assessed Mark’s cognitive factors using the Saint Louis University Mental Status (SLUMS) Examination (Morley, J. E., & Tumosa, N, 2002). Mark was not oriented to the day of week and was unable to recall five of the five designated words. Mark answered the rest of the questions correctly on the examination, completing the screening with a score of 24/30, indicating possibility of a mild cognitive impairment.

The occupational therapy practitioner also initiated the Performance Assessment of Self-Care Skills (PASS) to assess functional cognition (Holm, Rogers & Hemphill-Pearson, 2008). For skilled nursing facility purposes, the occupational therapy practitioner conducted the bed mobility, toilet management, dressing, and BINGO subtasks.

Table 3

*Performance Assessment of Self-Care Skills (Holm et al., 2008): Case Study of Mark*

<table>
<thead>
<tr>
<th>Subtask</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bed Mobility</td>
<td><em>Independence:</em> Mark was unable to lay on left side due to increased pain from injury that occurred years ago. Mark is only able to lay on right side. <em>Safety:</em> Unsafe observation – Mark “plopped” onto bed <em>Adequacy:</em> Mark did not lay on bed in a “controlled” manner, which means he does not get full points for the adequacy section.</td>
</tr>
<tr>
<td>UB &amp; LB Dressing</td>
<td><em>Independence:</em> Able to complete independently <em>Safety:</em> Able to complete safely <em>Adequacy:</em> Able to complete adequately Mark reports increased difficulty with buttoning small buttons on his plaid shirts. He would benefit from fine motor coordination and dexterity interventions to improve ability to dress without increased time or difficulty. Mark also demonstrated increased with donning socks. He would benefit from adaptive equipment training and hemi-technique for UB and LB dressing.</td>
</tr>
<tr>
<td>Toilet Management and Mobility</td>
<td><em>Independence:</em> Able to complete independently <em>Safety:</em> Able to complete safely <em>Adequacy:</em> Able to complete safety</td>
</tr>
</tbody>
</table>
Therapist recommends toilet paper be moved to right side to accommodate for Mark’s left shoulder pain.

**Independence:** Mark required verbal cuing for both tasks (locating numbers and calling BINGO)

**Safety:** Able to complete safely

**Adequacy:** Mark required cuing to mark numbers correctly and call BINGO promptly.

The occupational therapy practitioner noted Mark’s strengths and areas to improve based on functional cognition assessment performance, skilled observations, and results of the Geriatric Depression Scale. Prior to SNF admission, Mark was social with peers. He is unfamiliar with the residents in his new home and has isolated to his bedroom instead of attending daily activities. The occupational therapy practitioner observed the BINGO initiation deficit and documented recommendations for cognitive retraining interventions for future sessions to address the initiation of leisure activities.

His room requires modifications to address functional transfer and mobility ease to compensate for left upper extremity chronic pain. The occupational therapy practitioner noted recommendations such as using a right-side bed rail, right-side toilet paper holder, and right-side end table next to recliner in bedroom.

Mark would benefit from continued skilled occupational therapy services to address ADL training, safe functional transfers, and cognitive training/stimulation with leisure activities in order to improve participation, performance, and overall quality of life in the skilled nursing setting.

**Conclusion**

Occupational therapy practitioners are qualified to address functional cognition of individuals, which includes their meaningful occupations and their abilities to perform at any developmental, physical, or emotional level. Whether an occupational therapy
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practitioner defines themselves as a researcher, an educator, or a practitioner, each therapist has a responsibility to advocate for functional cognition use in all settings. “Practitioners need to recognize the construct of functional cognition, support its use in practice, and disseminate knowledge of the construct among care teams and administrators and in their everyday interactions with clients and caregivers” (Giles et al., p. 5, 2020).

References


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**Appendix C.2. Communication Logs with Editors**

**OT Practice Communication Log**
I reached out to the editor of OT Practice in the spring of 2020 introducing myself and proposing a functional cognition article. Below is my email. I also included the title, abstract, and learning objectives of my article.

Hello Ted,
My name is Logan Reinhiller and I am an occupational therapy practitioner. I'm also a post-professional doctorate student at St. Catherine University with an interest in functional cognition. Throughout the program, I've been completing literature reviews for my scholarly defense. I wanted to discuss one of my proposals with you and see if this would be something you'd be interested in for OT Practice.
[Title, abstract, and learning objectives here]
I'd love to discuss this topic more with you if you're interested. I look forward to hearing from you. Thank you so much for your time! Have a great day.

Ted McKenna responded immediately with the following response:

Hi Logan,
Thanks for your email. We've done a few articles related to cognitive assessments recently, as well as another submission we received on the topic a few months ago, so we should hold off any more at the moment, given we've got such a wide range of topics to survey and limited space. Maybe an OT or geriatric journal might be a good fit. Thanks for your interest, sorry not to be able to accommodate – we're just really limited for space at the moment. Of course just let me know whatever questions.
Best regards,
Ted McKenna

Although OT Practice is limited at the moment, I am pleased that functional cognition is a topic that is being discussed.
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AOTA Productive Aging SIS Quarterly

I reached out to the editor of Productive Aging from SIS Quarterly magazine in the spring of 2020. I introduced myself and proposed a functional cognition article. Below is my email. I also included the title, abstract, and learning objectives of my article.

Hello Whitney,
My name is Logan Reinhiller and I am an occupational therapy practitioner from Sioux Falls, South Dakota. I'm also a post-professional doctorate student at St. Catherine University with an interest in functional cognition. Throughout the program, I've been completing literature reviews and case studies for my doctoral project. I wanted to discuss one of my proposals with you and see if this would be something you'd be interested in for the SIS Quarterly.
[Title, abstract, and learning objectives here]
I'd love to discuss this topic more with you if you're interested. I look forward to hearing from you. Thank you so much for your time! Have a great day.

I had an immediate response from Whitney. Below is her reply:

Logan,
Thanks for reaching out. I’m attaching the author guidelines for the PA SIS to this message. I’d be happy to review your article. Be sure, however, to note that the manuscript needs a component of translation to practice, often accomplished through a case study, so cannot solely be a literature review. If you have a draft manuscript I can review and give you a better idea if it would fit the SIS and further explain how the process works. Keep me posted!
Best,
Whitney Lucas Molitor, OTD, MS, OTR/L, BCG
After reviewing the attached guidelines, I sent her my manuscript. Below is her reply.

Logan,

I’ve reviewed your manuscript. This is a great topic.
I do think there is potential for this to fit with the PA SIS, however, it would require revision. The biggest areas are:

• Length would need to be decreased significantly to around 2100 words (with references).
• The readership for the PA SIS is specific to occupational therapy professionals. As such, some of the background, that an OT would likely already be aware of, would be removed. This makes room for the bulk of the article to be about hands on application, ie what can the reader implement with their own caseload.
• The case would need to be revised some. I like the PASS, in fact is one of my favorites and one I teach to my students, but would like to see more functional intervention in the case vs so much evaluation. So, instead of ending the case with recommendations for treatment, these would be described within the case, and then outcomes could follow.
• Have you implemented a functional cognitive program where you are employed? This would actually strengthen the manuscript significantly, discussing ways to add function-based items to a therapy department, to get buy-in from the facility, etc.

Please let me know your thoughts. I’m happy to provide guidance to the revisions. If you do plan to proceed with revising please keep me posted as I will send you the authorship contract.

I agreed to continue with this writing-piece, and she sent me an AOTA copyright release form. This evaluation method will be on-going, as she and I will be working together for the next year to edit the manuscript until it is ready for publishing, although there isn’t a guarantee that a submission will be published during the review process. Some quarterlies have themes, so this functional cognition article will have to be something published in spring 2021 with a draft due early January 2021.
Chapter 5. Evaluation Outcomes and Analysis

The Knowledge Translation Planning Template (Barwick, 2008, 2013, 2019) was used to evaluate the three knowledge translation projects and summarize the knowledge users, main messages, knowledge translation goals, knowledge translation strategies, and knowledge translation evaluation.

Evaluation Outcomes

Knowledge Translation Project 1.

Functional Cognition Assessments in Skilled Nursing: A Knowledge Translation Project for the South Dakota Occupational Therapy Association

Knowledge Users:

This presentation was designed to meet the learning needs of occupational therapy practitioners and occupational therapy students in the state of South Dakota who focus on improving South Dakota occupational therapy practice related to functional cognition in skilled nursing facilities.

Main Messages:

The main message of this presentation is that implementing functional cognition assessments and interventions in occupational therapy practice is critical for improving safety, independence, and occupational performance of older adults in the skilled nursing settings and demonstrating occupational therapy’s contributions to improve health outcomes.

Knowledge Translation Goals:

The general goals for the occupational therapy practitioners and student audiences were to share knowledge of the functional cognition topic. It was important to
inform practitioners of the availability of functional cognition assessments, as two of the three assessments discussed in the presentation were free. Ideally, this buy-in would generate awareness and interest, as occupational therapy practitioners are already evaluating the independence and safety of activities of daily living, and by adding functional cognition into the care plan, a more accurate discharge option would be in place for the residents.

**Knowledge Translation Strategies:**

In order to generate awareness and share knowledge of this project, it is important to provide opportunities to collaborate with one another, use evidence-based research, and apply learning of functional cognition assessments in case studies. This presentation was granted permission from the South Dakota Occupational Therapy Association to be used as a continued educational opportunity, which is another strategy for professional development.

**Knowledge Translation Evaluation:**

This presentation will provide value to the older adult population, by educating occupational therapy practitioners working in the skilled nursing setting, as there was an opportunity to change knowledge, attitude, and the systems currently in place. Peer and mentor evaluation was obtained in the development of the presentation. A survey was also created with the Qualtrics software. Evaluation by participants will occur as part of the continuing education session.

**Knowledge Translation Project 2.**

Functional Cognition Assessments and Interventions for Skilled Nursing: A Knowledge Translation Project for Entry-Level Education
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Knowledge Users

The “Importance of Implementing Functional Cognition Assessments & Interventions to Older Adults in Occupational Therapy Practice” learning module was presented to entry-level occupational therapy doctorate students from the University of South Dakota.

Main Messages

By promoting awareness and educating entry-level doctoral students on the importance of implementing functional cognition assessments and interventions, the audience will be knowledgeable of methods to achieve optimal safety, independence, and performance with daily tasks. The main focuses of this presentation were to identify the benefits of functional cognition and interventions, describe functional cognition assessments that can be used in a variety of settings, understand the Cognitive-Functional Evaluation Model, and practice the administration and scoring of a functional cognition assessment.

Knowledge Translation Goals

The general goals for the occupational therapy student audience was to share knowledge and generate awareness of the functional cognition topic. It was important for students to be aware of the availability of functional cognition assessments, as two of the three mentioned in the presentation were free. This presentation also educated students on why functional cognition is such a prevalent topic to occupational therapy practice.
Knowledge Translation Strategies

In order to generate awareness and share knowledge of this project, it was important to provide opportunities to collaborate with one another, utilize evidence-based research to educate students of the use functional cognition assessments, and provide materials of the assessment for review, administer, and score. This presentation provided value to the occupational therapy students, as there was an opportunity to change knowledge, attitude, and the systems currently in place. Through process measures and outcome data, occupational therapy students can demonstrate the importance of functional cognition during fieldwork opportunities and future practice by discussing safety, independence, and participation with activities of daily living.

Knowledge Translation Evaluation

The evaluation method included ten questions based on how the presenter followed the learning objectives and how the presenter spoke. It also had three questions where students could write about what went well and what could have been better. All learning objectives of this presentation were fully met besides the “hands-on experience” which was modified due to the transition of virtual learning. Based on the feedback, the audience agreed-strongly agreed that the attention and interest of this topic was clearly introduced, the main points of the presentation were clear, and the delivery was fluent. 50% of the audience agreed that they felt comfortable with the implementation of functional cognition assessments, while 25% felt neutral, and 25% strongly agreed. The students reported that the presenter did well with identifying assessments and where to attain the assessments for future use, related the information to a case study, and used clear ACOTE standards appropriately.
Constructive feedback included implementing more photos or diagrams to express ideas.

**Knowledge Translation Project 3.**

Functional Cognition Assessments and Skilled Nursing Facilities: A Knowledge Translation Project Proposed for an Occupational Therapy Practice Magazine

**Knowledge Users**

The “The Implementation of Functional Cognition Assessments and Interventions to Older Adult Population” article is targeted to members of the American Occupational Therapy Association who receive SIS Quarterly four times a year. Readers can be researchers, practitioners, educators, or students of occupational therapy.

**Main Messages**

The overarching message of this article is to educate readers on the importance of implementing functional cognition assessments into daily practice to achieve optimal safety, independence, and performance with daily tasks in a skilled nursing setting. The main focuses of this presentation is to identify the benefits of functional cognition and interventions, describe functional cognition assessments that can be used in a variety of settings, and examine a case study that uses a functional cognition assessment for optimal care planning in a skilled nursing setting.

**Knowledge Translation Goals**

The general goals for the readers are to share knowledge and generate awareness of functional cognition assessments appropriate for the skilled nursing setting.
Knowledge Translation Strategies

In order to generate awareness and share knowledge of this project, it is important to utilize evidence-based research to educate readers of the use functional cognition assessments. This article provides value to the older adult population, as well as occupational therapy students and practitioners who are work in the skilled nursing setting, as there is an opportunity to change knowledge, attitude, and the systems currently in place.

Knowledge Translation Evaluation

The proposed article will be evaluated through peer-reviews with the editor of the productive aging SIS magazine. The editor of Productive Aging-SIS Quarterly has agreed to assist with revisions of the current article. This will be an on-going process over the next year. The goal is to turn in a final draft by January 2021. The review committee will decide at that time if the article will be published for spring 2021.

Evaluation Analysis

Comprehensiveness

The comprehensiveness of all three knowledge translation projects have both strengths and weaknesses. Each project describes a unique population of stakeholders that have some commonalities with occupational therapy. The secondary stakeholders for each project are the older adult population in the skilled nursing setting, as they are the residents who benefit from the implementation of functional cognition assessments.

All projects have specific learning objectives and goals along with methods to measure evaluation outcomes. At this time, the SIS Quarterly: Productive Aging editor and I will be working together during the revision period. The evaluation method for this
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project will be a peer-review. If the review committee accepts this article in January 2021, the article could be published by spring 2021.

Alignment

The main message for each knowledge translation project was to increase awareness and implementation of functional cognition assessments into daily practice for older adults in the skilled nursing setting. Each project has different strategies and objectives. The education presentation for entry-level occupational therapy doctoral students addressed relevant AOTA accreditation standards as well. Evidence-based research was used to create all knowledge translation projects with articles less than ten years old. Surveys were used for both the SDOTA and USD education presentations to measure evaluation outcomes.

Feasibility

There are areas to grow for each project for optimal feasibility. The SDOTA and USD presentations were modified to accommodate virtual learning due the COVID-19 pandemic. Revisions will need to be made to the SIS article for potential publishing in Spring 2021.
Chapter 6. Reflection and Recommendations

Reflection on Mission and Vision Statements

My knowledge translation projects concentrate on the need of implementing functional cognition assessments to older adults in the skilled nursing facilities to promote optimal quality of life while taking safety and independence into consideration during participation of activities of daily living.

“As an inclusive profession, occupational therapy maximizes health, well-being, and quality of life for all people, populations, and communities through effective solutions that facilitate participation in everyday living.

Pillars: Effective: Occupational therapy is evidence based, client centered, and cost-effective. Leaders: Occupational therapy is influential in changing policies, environments, and complex systems. Collaborative: Occupational therapy excels in working with clients and within systems to produce effective outcomes.

Accessible: Occupational therapy provides culturally responsive and customized services. Equity, Inclusion, and Diversity: We are intentionally inclusive and equitable and embrace diversity in all its forms” (AOTA, 2020). These projects correspond with AOTA’s 2025 Vision, as they facilitate all five pillars: Effective, Leaders, Collaborative: Accessible: and Equity, Inclusion, and Diversity. By conducting evidence-based research, many functional cognition assessments were found to be both reliable and valid for older adults in the skilled nursing setting. Proposals to occupational therapy practitioners and students were created to encourage leadership and advocacy for residents in the skilled nursing setting. These presentations were accessible online via Zoom application for the
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convenience of all audiences due to the recent COVID-19 pandemic. This doctoral project was created with the collaboration of occupational therapy practitioners, researchers, students, and educators.

This experience has encouraged me to become a leader in my profession and community. I have learned through application, collaboration, and clinical reasoning the importance of applying evidence-based research into current practice to promote safety, performance, and independence through functional cognition. I applied my knowledge to two professional development presentations this semester. One was a continuing education session through South Dakota Occupational Therapy Association and to the other presentation was to the University of South Dakota entry-level occupational therapy doctoral students and faculty members. These presentations helped me gain confidence with professional speaking, advocacy, and education for future opportunities. I have been challenged to reach out to those who are experts of functional cognition and create connections to help improve current occupational therapy practice.

Reflection on Knowledge Translation as a Focus for Advanced Practice

Research has always been a difficult topic for me. I struggled with statistics during my undergraduate career and knew this would be my biggest obstacle as I transitioned to this post-professional doctorate program. I also knew that understanding and practicing research was essential if I wanted to excel in my occupational therapy career. I began this post-professional journey just two weeks after the completion of my Master of Occupational Therapy degree. I knew there was more for me to learn while embarking on my occupational therapy career.
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The transition from a new graduate to a practitioner to a scholar has been more than I could have imagined. It was a goal early on in my career to change the assessment measures in the skilled nursing setting, but I had no idea I would find the answers to my question all while gaining the confidence and assertiveness to share my findings with my superiors. Moving forward with my career, I plan to continue with my push to functional cognition implementation.

Reflection on Professional Development

One of the biggest challenges I faced during this doctoral project was gaining the confidence to reach out to the functional cognition experts. I was intimidated by their knowledge and had a fear of being rejected. I read “Functional Cognition and Occupational Therapy: A Practice Approach to Treating Individuals with Cognitive Loss” by Dr. Timothy Wolf, Dr. Dorothy Farrar Edwards, and Dr. Gordon Muir Giles last summer during the Advanced Practice course. I felt empowered by their work and gained the confidence to reach out to Dr. Timothy Wolf and commend him on the work he, Dr. Dorothy Farrar Edwards, and Dr. Gordon Muir Giles achieved. He responded immediately and carbon copied the other authors, thanked me for my compliments and encouraged me to reach out in the future if I had any questions. I felt so reassured, humbled, and excited about the journey I had started with my own literature reviews on functional cognition. I want to make an impact to others in the same way they had on me.

This memory comes to mind often, especially when I read articles or write about the work these experts have accomplished. It is clear that the American Occupational Therapy Association is on board with this evolving topic and I have an obligation to put
what I have learned into practice. Change can be difficult. Transitioning to new, unfamiliar assessments can be challenging, but I have the opportunity to educate others on what I have learned.

Lastly, this experience has allowed me to grow professionally and academically. I have gained confidence to present to students, colleagues, and superiors. My professional goal moving forward is to become a more active state association member and encourage occupational therapy practitioners around me to strengthen functional cognition in their own practice.

**Recommendations**

**Summary of Needs for Future Knowledge Translation**

As a Doctor of Occupational Therapy with a functional cognition concentration, I plan to continue my literature synthesis and case studies and put my findings into a program format. Dr. Whitney Lucas Molitor and I will be working closely in these next few months finalizing my SIS Quarterly manuscript. She pointed out an important need that I plan to incorporate in my article. A functional cognition program would strengthen my article, but it would also promote functional-based interventions, which would improve the independence, safety, and performance of older adults in the skilled nursing setting. By initiating this program and emphasizing the importance of functional cognition, I may get buy-in from the therapy department, the facility, and the clients’ family members and support systems. This will be my next knowledge translation project, mentioned in more detail below. This program would start off on a local level, but if a protocol with screenings, assessments, interventions, and evaluation methods develop, this program could be something used both state- and nation-wide.
One Proposed Future Knowledge Translation Project

I believe the next knowledge translation project is to develop a functional cognition program that includes functional cognition assessments, interventions, and function-based tasks in my current work setting. I gathered evidence on functional cognition assessments that are reliable and valid with the older adult populations and learned about an intervention framework that may be adopted in the skilled nursing setting. I can now propose a program that emphasizes best practice for functional cognition and includes functional activities to address participation, safety, and independence.

Knowledge Users:

Interprofessional care teams, facility leaders, and the residents’ family members are the primary knowledge users for this proposed knowledge translation project. Functional cognition assessments and interventions have the potential to identify older residents’ independence levels and design interventions to support their safety, occupational performance, and participation. Older adults in the skilled nursing setting are the primary beneficiaries of this functional cognition program.

Main Messages:

The overarching message of this project would be understanding the importance of implementing functional cognition assessments and interventions into daily practice of skilled nursing settings for optimal safety, independence, and performance with daily tasks. The three main focuses of this project would be to evaluate the outcomes of different functional cognition assessments in the occupational therapy program, observe safety and adequacy techniques with self-care tasks, and select data collection
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methods to document the process and outcomes of new functional cognition assessments in the program.

**Knowledge Translation Goals:**

The overall goal is to gain buy-in for the functional cognition program to generate awareness, interest, and confidence with assessments and interventions. Occupational therapy practitioners are already evaluating the independence and safety of activities of daily living. By adding functional cognition into the care plan, a more accurate discharge option would be in place for the residents.

**Knowledge Translation Strategies:**

In order to generate awareness and share knowledge of this project, it is important to provide opportunities to collaborate with one another and utilize evidence-based research to interest professionals to use functional cognition assessments. This program will provide value to the older adult population, as well as occupational therapy students and practitioners who are work in the skilled nursing setting, as there is an opportunity to change knowledge, attitude, and the systems currently in place.

**Knowledge Translation Evaluation:**

This program would provide value to the older adult population by educating occupational therapy practitioners who work in skilled nursing and changing in knowledge, attitudes, and the systems currently in place. Through process measures and outcome data, occupational therapy practitioners can demonstrate the importance of functional cognition in daily practice by discussing safety, independence, and participation with activities of daily living. This program will be measured by collecting data from the functional cognition assessments and observing the outcomes and
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performance skills of self-care tasks at the beginning, middle, and end of the functional cognition program.

Reflection on COVID-19 during the Doctoral Project

The last four months have been experiences I will never forget. The COVID-19 pandemic has impacted my life personally, professionally, and educationally. It was difficult at times to practice positivity when fear, precautions, and sudden actions came to play. I was challenged to become more creative with my occupational therapy practice and my doctoral work. Luckily, I have experienced grace and forgiveness from colleagues, superiors, and clients.

Professionally, my caseload has decreased significantly, and I have struggled with encouraging my clients to stay home and safe rather than advising them to come in for therapy. Telehealth has also been an option these last two months, but I struggle with this type of therapy because most of my caseload requires hands-on interaction. Interestingly, telehealth guidelines and protocols state that functional cognition codes are not accepted through CMS at this time. I wrote a letter to CMS using an AOTA template and shared this information with my superiors. I have learned to advocate for my clients in a legislative way due to the current COVID-19 restrictions.

Personally, my father completed stem-cell transplant to win the aggressive battle with lymphoma brain cancer. His immune system was non-existent. If he comes in contact with this virus, it could most likely be fatal.

Educationally, I readjusted my knowledge translation projects to a virtual platform to abide by social distance precautions. Fortunately, the post-professional doctorate program was completely online, which has helped me achieve a sense of schedule,
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routine, and convenience with my learning. COVID-19 has been a critical time in our history, but this too shall pass. I have been forced to look at the world in a new lens, which has helped me become a more patient, and appreciative person.
References

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