



EBP: Scholarly Agenda

Presented by Joni Gavel, OTS

Research Question

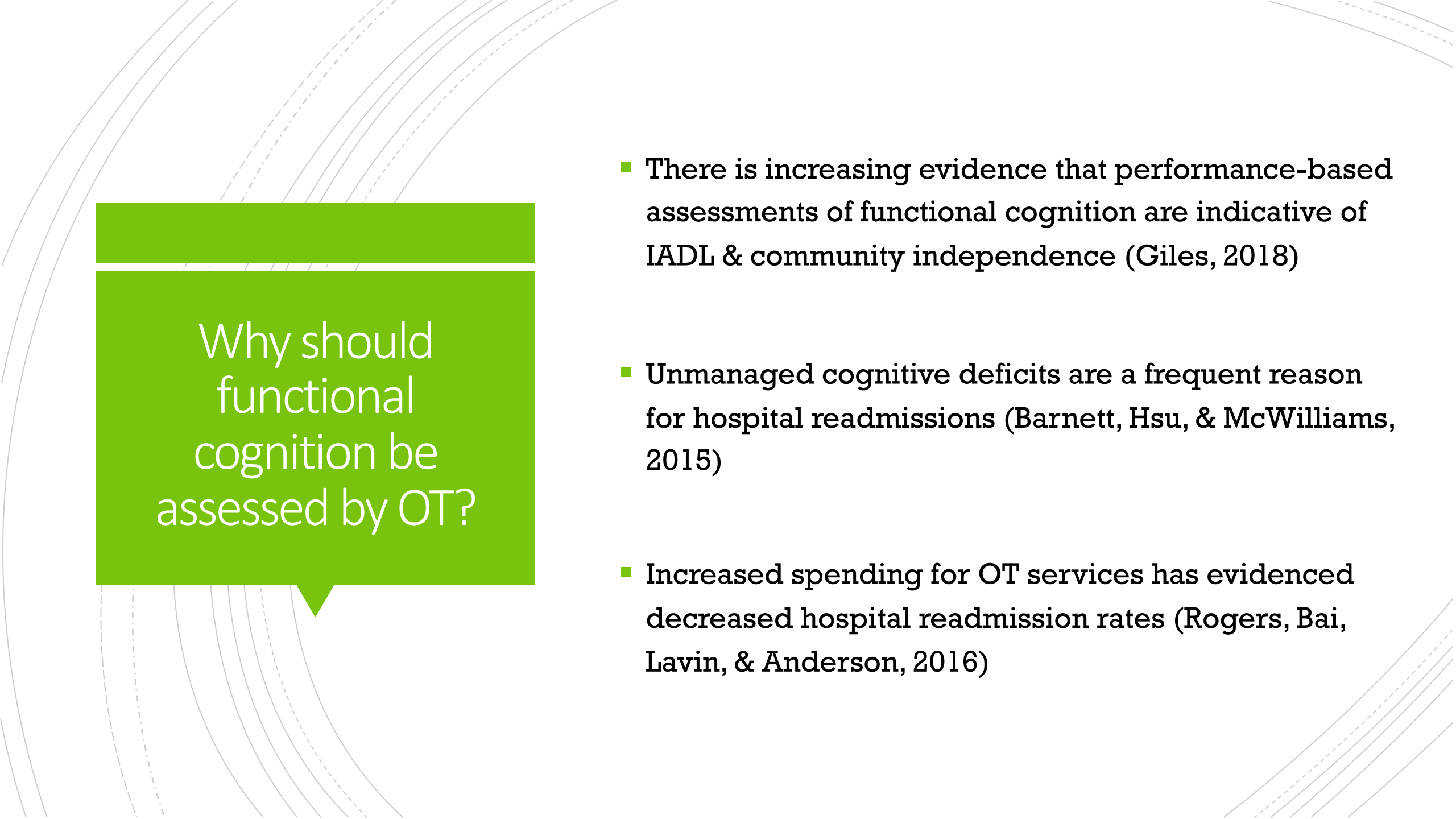
How can occupational therapy evaluation address functional cognition in patients with cognitive deficits prior to discharge home?

Introduction

- **Population:** Individuals at risk for cognitive deficits including TBI, stroke, Parkinson's disease, and dementia patients
- **Area of Practice:** Occupational therapy evaluation focused on addressing functional cognition to ensure safe discharge home for individuals who may still have cognitive deficits.

Why should
functional
cognition be
assessed by OT?

- **Functional cognition involves individual's ability to:**
 - Understand their own strengths & weaknesses
 - Implement strategies to perform occupations
 - Maintain and create habits, routines, and skills to support occupational performance (Giles, 2018)
- **OTs regularly utilize performance-based assessments that require clients to engage in complex tasks that:**
 - Have great cognitive & physical emphasis
 - Integrate multiple information sources
 - Require sequencing & multi-action steps (Giles, 2017)

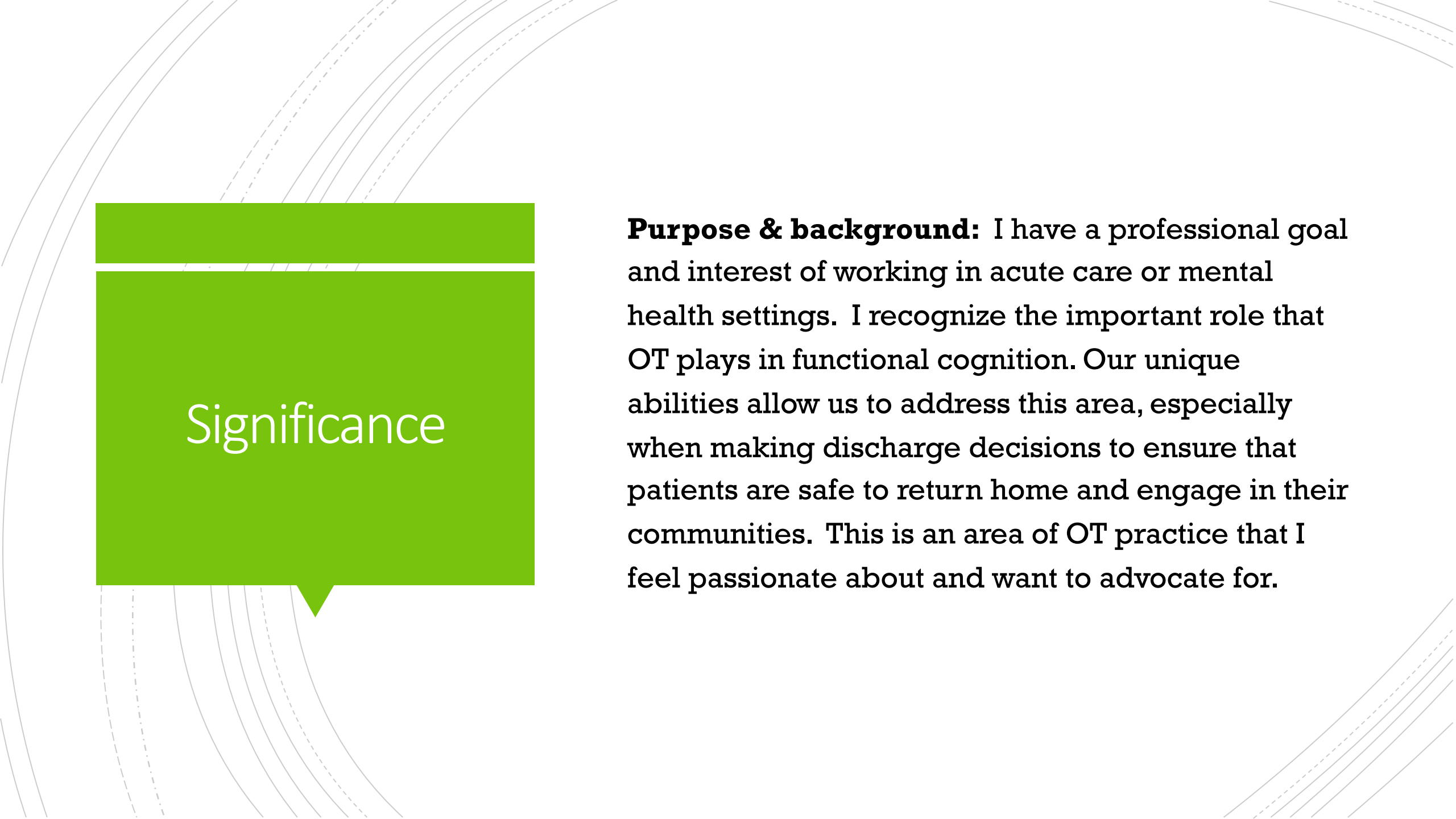
The background of the slide features several thin, curved lines in shades of gray, some solid and some dashed, creating a sense of movement and depth. A large green speech bubble is positioned on the left side, containing the main title.

Why should functional cognition be assessed by OT?

- There is increasing evidence that performance-based assessments of functional cognition are indicative of IADL & community independence (Giles, 2018)
- Unmanaged cognitive deficits are a frequent reason for hospital readmissions (Barnett, Hsu, & McWilliams, 2015)
- Increased spending for OT services has evidenced decreased hospital readmission rates (Rogers, Bai, Lavin, & Anderson, 2016)

Abstract & Audience

- **Abstract:** Occupational therapists play a vital role in mental health and help individuals with cognitive deficits perform daily life tasks. This scholarly agenda is intended to identify ways that occupational therapists can effectively evaluate and identify cognitive deficits in individuals and in turn help to affirm safe discharge decisions and successful community integration.
- **Intended Audience:** Potential future employers in mental health or other settings or who regularly work with individuals with cognitive deficits or neurological conditions.

The background of the slide features several thin, curved lines in shades of gray, some solid and some dashed, creating a sense of movement and depth. On the left side, there are two overlapping green shapes: a smaller rectangle on top and a larger speech bubble-like shape below it, both in a vibrant green color. The word "Significance" is written in white, sans-serif font inside the larger green shape.

Significance

Purpose & background: I have a professional goal and interest of working in acute care or mental health settings. I recognize the important role that OT plays in functional cognition. Our unique abilities allow us to address this area, especially when making discharge decisions to ensure that patients are safe to return home and engage in their communities. This is an area of OT practice that I feel passionate about and want to advocate for.

Article Search Strategy

- **Databases:**

- AJOT, CINHAL, OT Search, OT Seeker, Cochran Database of Systematic Reviews, Google Scholar

- **Search Terms:**

- Occupational Therapy AND Functional Cognition
- Occupational Therapy AND Functional Cognition AND Discharge
- Occupational Therapy AND Functional Cognition OR Executive Functioning
- Occupational Therapy AND Functional Cognition AND Evaluation
- Occupational Therapy AND Functional Cognition AND TBI OR Stroke OR Dementia OR PD

A green speech bubble graphic with a tail pointing towards the bottom left. Inside the bubble, the text 'Existing Evidence' is written in white. The bubble is positioned on the left side of the slide, overlapping the background's curved lines.

Existing Evidence

- **Inclusion Criteria:**

- Published in 2009 or later
- Peer-reviewed
- Full-text articles
- Articles authored by at least one occupational therapist

- **Exclusion Criteria:**

- Non-English language articles
- Articles from disciplines other than OT

- **Strategy for selecting articles:**

- Content best addressed the PICO question
- Evaluation tools discussed were/could be used prior to discharge
- Each article demonstrated the importance of OT's ability to utilize performance-base assessments



Existing Evidence

- **Types of Evidence:**
 - Quantitative, qualitative, cross-sectional study designs, cohort studies, case studies, reviews, and clinical opinion
- **Volume of Evidence:**
 - AJOT yielded the most relevant articles with over 230 articles relating to OT and cognition
 - Other search engines yielded around 20-30 hits based on inclusion criteria
- **Nature of Evidence**
 - In terms of the PICO question, there was not a great deal of evidence specific to it or evidence found was from other disciplines such as psychology or neurology.
 - Search terms also yielded several items that were not research articles such as lectures and poster presentations
 - Several relevant articles were unavailable or could not be retrieved to review other than the abstracts

Article 1

- **Title:** Multiple Errands Test-Revised (MET-R): A Performance-Based Measure of Executive Function in People With Mild Cerebrovascular Accident
- **Authors:** Morrison et al. (2013)
- **Study Objectives:**
 - To examine the ability of the MET-R to discriminate differences in executive function between mCVA and control participants
 - To identify individuals appropriate for OT services based on the results of a performance-based assessment.
- **Methods:**
 - A prospective cohort study design was used
 - A convenience sample of individuals w/mCVA (n=25) & matched healthy individuals (n=21) as a control group participated in the study
 - Original MET was revised for the needs of the study such as objective scoring & improved clinical utility.
 - MET-R scores & CVA outcome measures were compared for all participants 6 months post-mCVA

Article 1

- **Outcomes**

- **Results:**

- Differences in MET-R scores between mCVA and control participants were statically significant
- The MET-R was able to discriminate between mCVA & non-mCVA control participants
- Participants with mCVA evidenced no to minimal impairment on other measures of executive function used in the study

- **Clinical Significance:**

- The MET-R was concluded as a valid & reliable measure to detect executive function deficits in individuals
- The MET-R can identify cognitive deficits missed by other screening tools
- The MET-R can help OTs to identify individuals appropriate for therapy to successfully integrate back into their communities

Article 2

- **Title:** Reliability and validity of a functional cognition screening tool to identify the need for occupational therapy
- **Authors:** Edwards et al. (2019)
- **Study Objectives:**
 - To justify the need to assess functional cognition as part of post-acute care planning
 - To examine the Menu Task (MT) as a screening tool to measure functional cognition to assess the need for OT services
- **Methods:**
 - A cross-sectional study design was used
 - Two convenience samples of community-dwelling adults (n=130) & hospitalized adults (n=60) aged 55 and older
 - Measures administered in order: MT, MoCA, NEADLS, BIMS, & Trails A & B
 - Participants were grouped into “impaired” & “not-impaired” groups based on BIMS, MoCA, & NEADLS scores
 - MT scores were compared between impaired & not-impaired groups

Article 2

- **Outcomes**

- **Results:**

- Significant differences between groups were found
- Participants identified as impaired by the MT evidenced significantly decreased performance on other neurocognitive and IADL measures
- Impaired participants identified by the MT were significantly older & less independent w/ADL & IADLs

- **Clinical Significance:**

- Demonstrated need and the importance of brief performance-based screening tools to identify individuals who may need a more comprehensive OT evaluation
- Incorporation of functional cognition screening tools should increase the number of individuals that are referred for OT evaluation and treatment

Article 3

- **Title:** The functional cognitive evaluation and model to assess older adults' ability to function in their homes in the community.
- **Authors:** Zilbershlag and Josman (2019)
- **Study Objective:**
 - To construct a functional-cognitive evaluation for older adults with cognitive deficits in order to address functioning & safety in their homes and communities.
- **Methods:**
 - Participants included older community dwelling adults (n=110) aged 65-92 w/cognitive deficits
 - Participants were evaluated in their homes using the FCE & other functional outcome measures.
 - Recommendations & results were provided to participants following the evaluation.
 - Follow-ups were conducted via telephone (2 mos. out) & a 2nd home visit (4 mos. out) to examine functional status & determine if recommendations were being utilized

Article 3

- **Outcomes**

- **Results:**

- Statistical analyses indicated that executive functioning & participant self-efficacy help to predict basic IADL performance
- Data indicated significant results in that judgement, problem solving, and better awareness abilities influence decision making abilities

- **Clinical Significance:**

- The FCE is a valid and reliable evaluation tool for OT practitioners to utilize for individuals with cognitive deficits
- The FCE can help OT practitioners make recommendations to support individuals to independently function in their homes & communities.

References

- Barnett, M. L., Hsu, J., & McWilliams, J. M. (2015). Patient characteristics and differences in hospital readmission rates. *JAMA Internal Medicine*, 175, 1803–1812. doi:10.1001/jamainternmed.2015.4660
- Edwards, D. F., Wolf, T. J., Marks, T., Alter, S., Larkin, V., Padesky, B. L., ... Giles, G.M. (2019). Reliability and validity of a functional cognition screening tool to identify the need for occupational therapy. *American Journal of Occupational Therapy*. 73, 7302205050. doi:10.5014/ajot.2019.028753
- Giles, G. M. (2018). Neurocognitive rehabilitation: Skills or strategies?. *American Journal of Occupational Therapy*. 72(6):7206150010. doi:10.5014/ajot.2018.726001
- Giles, G. M., Edwards, D. F., Morrison, M. T., Baum, C., & Wolf, T. J. (2017). Health Policy Perspectives—Screening for functional cognition in post-acute care and the Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014. *American Journal of Occupational Therapy*, 71, 7105090010. doi:10.5014/ajot.2017.715001

References

- Morrison, M.T., Giles, G.M., Ryan, J.D., Baum, C.M., Dromerick, A.W., Polatajko, H.J., & Edwards, D.F. (2013). Multiple errands test–revised (MET–R): A performance-based measure of executive function in people with mild cerebrovascular accident. *American Journal Occupational Therapy*. 67(4):460–468. doi: 10.5014/ajot.2013.007880
- Rogers, A. T., Bai, G., Lavin, R. A., & Anderson, G. F. (2016). Higher hospital spending on occupational therapy is associated with lower readmission rates. *Medical Care Research and Review*, 74, 668–686. doi:10.1177/1077558716666981
- Zilbershlag, Y., & Josman, N. (2019). The functional cognitive evaluation and model to assess older adults' ability to function in their homes in the community. *Physical & Occupational Therapy In Geriatrics*, 37(3):151-170. doi:10.1080/02703181.2019.1622620