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Emily Geissler
University of North Dakota

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Stroke rehabilitation through the continuum of care: Integrating evidence and occupation-based practice

Emily Geissler, OTDS, Scinda Janssen, PhD, OTR/L, CLA, FAOTA & Julie Grabanski, PhD, OTR/L,
Department of Occupational Therapy, University of North Dakota School of Medicine & Health Sciences
Grand Forks, ND 58202-9037 | Contact: emily.geissler@ndus.edu

Abstract

Purpose: The purpose of this scholarly project was to provide patients with knowledge on the rehabilitation process and practitioners with a resource to assist in implementing occupation and evidence-based practice in stroke rehabilitation throughout the entire continuum of care.

Methods: An extensive literature review was conducted regarding evidence-based and occupation-based interventions within stroke rehabilitation. The author partnered with a midwestern healthcare agency to experience stroke rehabilitation as an occupational therapy practitioner across the continuum of care. Through a needs assessment, it was found patients lack knowledge regarding the rehabilitation process and practitioners lack knowledge of other settings. The ecology of human performance (EHP) model, occupational therapy process, and motor learning frame of reference were used throughout to guide the literature review, needs assessment, and time spent within the agency. The guide was developed and shared with the rehabilitation director to share with practitioners in each setting.

Conclusions: The guide was created to promote evidence and occupation-based practice throughout the continuum of care in stroke rehabilitation. It was also created to educate patients on their diagnosis and what their rehabilitation process will likely entail. Due to limited time in the partnering agency, the guide was not implemented into practice. Implementation of a resource that guides occupational therapy practitioners to best practice can enhance outcomes in rehabilitation for stroke patients.

Literature Review

- Strokes are a primary cause of disability and require an extended rehabilitation process to address motor, cognitive, and sensory concerns that impact a patient's roles and routines (CDC, n.d.; Skubik-Peplaski et al., 2012).
- Only 33% of practitioners use interventions that incorporate a purposeful task (Lloyd & Gee, 2016).
- Patients have difficulty engaging with exercise and being able to apply it to occupations (Jewel et al., 2016).
- Currently throughout the continuum of care, rote exercise is often utilized more than occupation-based intervention (Jewel et al., 2016).
- Online support guides are one resource for occupational therapy practitioners that promotes the use of occupation in therapy (Juckett et al., 2020).
- There is an increase in functional outcomes when practitioners utilize evidence-based interventions such as motor learning, task-oriented approach, and Rood's frame of reference (Gellert & Pulaski, 2021; Nilsen & Gillen, 2021).

Problem Statement

There is currently a lack of knowledge surrounding occupational therapy's role in stroke rehabilitation by patients and throughout the continuum of care. It was found that practitioners face barriers to implementing evidence and occupation-based intervention (Juckett et al., 2020). This product addresses gaps in knowledge with patient education and is a resource for evaluations and evidence-based interventions for each setting.

Product: Creating the Guide

Stroke rehabilitation through the continuum of care: Integrating evidence and occupation-based practice

- The purpose of the product is to provide a resource for patients regarding stroke education, and a resource for occupational therapy practitioners throughout all settings of the continuum on evaluations and interventions utilizing evidence and occupation-based practice with patients recovering from a stroke.
- The EHP model was used during development. To follow this model the sections are divided into person and context. Sections I & II are intended for patient education, while Section III is for practitioners.
 - *Section I: The Person* includes information on background, symptoms, and risk factors of a stroke.
 - *Section II: The Context* discusses the rehabilitation process and gives patients a summary of each rehabilitation setting and an introduction to the role of each team member.
- The development of Section III utilizes the Occupational Process, highlighting evaluation and intervention. It promotes the use of motor learning theory and Rood's frame of reference in practice.
 - *Section III: The Practitioner's Guide* is further broken down into each setting type, acute care, inpatient rehabilitation, and outpatient therapy. Within each setting type, appropriate evaluations are identified to utilize with the stroke population. Then, occupations are provided as interventions, and it is discussed how to incorporate aspects of evidence-based theory.

Figure 1

Excerpt from product: How motor learning is integrated into the occupation of toileting

Activities of Daily Living (ADLs)

Toileting: combines functional mobility with ADLs, and also incorporates aspects of dressing or clothing management making it a complex task.

Motor Learning

Discrete tasks: sitting on the toilet, pulling up pants, peri-cares, walking to the toilet
Serial tasks: peri-cares, standing up from the toilet, washing hands
Toileting is a **closed task**, as it remains consistent between all bathroom environments. It is also considered a **variable motionless task**, because sinks might differ but they all do the same job.

A majority of feedback gathered during task is **concurrent**, as it is important the patient completes the task safely. Feedback can also be **extrinsic or immediate**. This is summary feedback following the completion of the task to review performance. Often, a practitioner will discuss both the **knowledge of results** and the **knowledge of performance**. While it is important to look at the end of result of toileting, it is also important to analyze each step such as utilizing grab bars, managing clothing, and sit <> stand transfers.

External focus of attention is used, such as the completion of toileting and clothing management. These are both things going on outside of the person and goals they are trying to complete. Toileting is typically practiced as a **whole**, but could be broken down to **parts** such as mobility, pulling down pants, sit <> stands, etc. It is something that is **randomly** practiced.

Limitations & Recommendations

- The guide created was built based off resources available at specific facilities and did not consider physical or financial resources at other agencies.
- Limited implementation of the guide within practice due to lack of time spent at the partnering agency.
- It is recommended that the guide be given as a virtual and physical resource to occupational therapy practitioners at the partnering agency. Copies of the patient education materials should be easily accessible for when needed. Practitioners are encouraged to utilize evaluations and occupation/evidence-based interventions to promote best practice.

Contribution to Practice

- The guide includes sections that are patient education materials. Practitioners should easily be able to provide patients with information on stroke and the rehabilitation process from Sections I & II.
- Educate occupational therapy practitioners on appropriate evaluations and interventions to utilize with the stroke population in each setting throughout the continuum of care.
- Provide practitioners with occupation-based interventions that promote aspects of evidence-based theories and models to encourage best practice.
- Use of the EHP model in the stroke rehabilitation process to improve performance range for patients and assist with intervention goals.
- It is recommended that this product be utilized throughout all settings at the agency and could be adapted to fit resources available in other healthcare agencies as well.

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