



2020

## Intervention Strategies for Older Adults in Rural Skilled Nursing Facilities (SNF)

Mackenzie Brokaw

Hallie Longtin

Sarah Schumacher

[How does access to this work benefit you? Let us know!](#)

Follow this and additional works at: <https://commons.und.edu/cat-papers>

---

### Recommended Citation

Brokaw, Mackenzie; Longtin, Hallie; and Schumacher, Sarah, "Intervention Strategies for Older Adults in Rural Skilled Nursing Facilities (SNF)" (2020). *Critically Appraised Topics*. 3.  
<https://commons.und.edu/cat-papers/3>

This Critically Appraised Topic is brought to you for free and open access by the Department of Occupational Therapy at UND Scholarly Commons. It has been accepted for inclusion in Critically Appraised Topics by an authorized administrator of UND Scholarly Commons. For more information, please contact [und.common@library.und.edu](mailto:und.common@library.und.edu).

## **Intervention Strategies for Older Adults in Rural Skilled Nursing Facilities (SNF)**

Mackenzie Brokaw, OTS, Hallie Longtin, OTS, & Sarah Schumacher, OTS

*Department of Occupational Therapy, University of North Dakota, Grand Forks, North Dakota, United States*

Please direct correspondence to Sarah Schumacher at [sarah.j.schumacher@und.edu](mailto:sarah.j.schumacher@und.edu)

\*\*\*This resource was written by doctoral-level students in fulfillment of the requirements of the Occupational Therapy course “OT 403 - Clinical Research Methods in Occupational Therapy” at the University of North Dakota School of Medicine and Health Sciences, under the advisement of Professor/Course Director Anne Haskins, Ph.D., OTR/L, Assistant Professor Breann Lamborn, EdD, MPA, Professor Emeritus Gail Bass Ph.D., OTR/L, and Research and Education Librarian Devon Olson Lambert, MLIS.



M. M. Brokaw, H. N. Longtin, & S. J. Schumacher, 2020

## **Clinical Scenario:**

According to Aud & Rantz (2005), depending on where an individual comes from prior to admission to skilled nursing facilities (SNF) plays a factor in patient populations seen in nursing homes. For example, individuals coming from acute-care hospitals tend to have a diagnosis of cerebrovascular accidents (CVA), urinary tract infections, hip fractures, pneumonia, and wound infections, whereas individuals coming from assisted living facilities may have a diagnosis of dementia, depression, arthritis, and Alzheimer disease. Age is also dependent on where the patient was living prior to the SNF. A majority of the older population, 85 years old and older, come from assisted living facilities and the younger population, 65 years old and older, come from acute-care hospitals. Depending on the resident's former location and diagnosis, the level of assistance for activities of daily living (ADL) completion will vary. For example, a patient coming from an assisted living facility will need much less assistance in the ADL of bed mobility compared to an acute-care hospital patient. Gender also varies among the skilled nursing facility population, with more females than males (Aud & Rantz, 2005). Another factor affecting SNFs is the geographical location of the site. Rural SNFs face less competition from other non-rural SNFs. "They have a higher proportion of elderly and poor population but lower Medicare Advantage enrollment in their community" (Clement, Khushalani, & Baernholdt, 2018, p. 3). In addition, rural areas have a higher number of family practitioners within their population. The ratio of practitioners to SNF residents is more effective in terms of time, quality and client centeredness (Clement et al., 2018).

Because occupations are client-centered and hold unique value and meaning to each individual, it is not surprising that research supports the link between occupational engagement and health and well-being (Blank, Harries, & Reynolds, 2015). Unfortunately, residents in SNFs around the country are at risk for occupational deprivation for a multitude of reasons (Knecht-Sabres & Guzman, 2016). Routines are predictable and there is a lack of individuality, privacy, dignity, and autonomy. Patients experience loneliness and social isolation, impacting their overall health and well-being. One of the major factors affecting occupational deprivation in older adults in SNFs is related to environmental restrictions associated with these facilities (Knecht-Sabres & Guzman, 2016).

Occupational therapy has much to offer in addressing the above concerns; however, organizational and financial structures may limit the profession's impact on these issues (Rafeedie, Metzler, & Lamb, 2018). Due to Medicare changes, less therapy time is being allotted on activities of daily living and occupation-based interventions, creating barriers to practitioners' ability to remain client-centered (Kennedy, Maddock, Sporrer, & Grenne, 2002). Roughly 30% of occupational therapists and 55% of occupational therapy assistants work in SNFs. The workforce in this setting is larger than almost any other practice area, setting the stage for occupational therapy practitioners to change the way service is provided to residents and increase quality of life (American Occupational Therapy Association, 2015). Due to the large population of occupational therapy practitioners working in this setting, occupational therapy practitioners play a critical component in the potential to change the culture of SNFs to optimize performance and quality of life in its residents through the profession's principles and facilitation of choice. Occupational therapists can work to minimize the existence of occupational deprivation in these



facilities by utilizing their expertise with occupation-based interventions and client-centered care (Knecht-Sabres & Guzman, 2016).

The Person, Environment, Occupation (PEO) model determines the level of performance in self-care, productivity, and rest and sleep across the lifespan by determining the goodness of fit between person, environment, and occupation (Brown, 2019). Based on this model, SNFs inhibit individuals' occupations due to an unsupportive environment. The fit between person and environment restricts occupational performance for older adults in SNFs, and therefore, is an area that needs further examination.

### **Focused Question:**

Does implementing occupation-based, client-centered interventions with older adults, age 65 years and older, being discharged from hospital settings to SNFs in rural areas decrease occupational deprivation?

### **Purpose Statement:**

Older adults in SNFs are facing occupational deprivation due to their environments restricting occupational performance. Individuals seeking residence in SNF in urban settings tend to face more issues surrounding client-centered interventions than those in rural communities. Due to the large population of occupational therapy practitioners working in this setting, there is potential to change the culture of care residents receive in SNFs. The purpose of this CAT is to determine if implementation of occupation-based interventions decrease occupational deprivation in SNFs in rural areas.

### **Data Collection Procedures:**

The clinical question focused specifically on occupational deprivation of older adults (65 years and older) in SNFs. Multiple databases were searched using Boolean search phrases and a variety of terms. “Skilled nursing facilities” AND “occupational therapy” were terms that yielded a high number of results related to our question. In addition, terms such as “intervention,” “older adults,” “client-centered care,” “rote exercise,” and “occupational deprivation” were included and paired in a variety of ways. Articles that were included by the researchers fit criteria regarding at least one aspect of the focused question. Because there is limited research on this population specifically, we decided to include any population that was involved in occupational deprivation or client-centered care. Some of these populations include individuals with cerebrovascular accidents (CVA), general deconditioning, hemiplegia, median and ulnar nerve injuries, and those with mental health concerns. In addition, many of the articles are from the 1990s. This is due to the fact that there has been little research on this topic since then. Because of this, the researchers included any relevant articles, regardless of when they were published. Articles that were excluded from this critically appraised topic were those that did not fit within our search criteria. Forty-five articles were reviewed in depth, with twenty-one selected for further review. Of these twenty-one articles, three were qualitative level N/A, five were level I randomized control trials, one was level II, one was level III, one was a peer



reviewed quantitative paper, one mixed methods, one cross sectional design, and five informative articles, and one journal article.

### **Synthesis:**

Occupation-based interventions play a positive role for a variety of reasons in the type of care older adults in SNFs receive. Occupation-based interventions add purpose to the individuals' lives. This can elicit and support movement throughout their daily lives and bring a sense of social connection through competition. Incorporating movement within their lives is also a good way to distract them from the pain they may be feeling (Ching-Lin Hsieh, Nelson, Smith, & Peterson, 1996). Individuals use occupations to build identity. Participation in these occupations was seen as essential to recovery from mental illness; however, recovery is primarily social (Blank et al., 2015).

Benefits from occupation-based interventions continue with the literature showing that older adults' occupational performance can be significantly improved through low-intensity occupation-focused and occupation-based interventions. According to Kennedy et al., (2002), the benefits of the low-intensity occupation-based intervention stem from the occupational therapists using cognitive, behavioral, and environmental strategies. This may significantly improve occupational performance in older, home-dwelling adults with physical health problems (Kennedy et al., (2002).

The literature also suggests that there is significantly more improvement in individuals who use occupation-based interventions rather than rote-exercise interventions, specifically patients with median and ulnar nerve injuries (Rostami, et al., 2017). Rote exercise is a fixed routine that focuses on mechanical and repetitive actions (Dictionary.com, 2020). It holds little to no meaning and comes from memory. Occupation-based intervention leads to more satisfaction, motivation, and sense of autonomy and control in life compared to rote exercise, along with producing more generalization and better transfer of learning. A critical finding in a follow-up session from a randomized control trial by Rostami et al., (2017), was that there was significantly continued improvement in the occupation-based constraint-induced movement therapy group when compared to the rote exercise-based constraint-induced movement therapy group. Participants from the movement therapy group also scored significantly higher for their own perception in level of performance and satisfaction. In another randomized control trial by Zimmerer-Branum & Nelson (1995), more repetitions were performed by those participating in occupation-based interventions than those performing rote exercise. A statistically significant number of elderly nursing home residents chose an occupation-based intervention instead of a rote exercise when given the choice. More compliance and willingness, better performance, increased participation, and choice increased client purpose when occupation-based interventions were used (Zimmerer-Branum & Nelson, 1995).

Occupation-based interventions provide feedback, sensory stimulation, and symbolic meaning. Clients assign meaning and purpose to occupation-based interventions. A randomized control trial by Nelson, et al., (1996) was done to show the difference between occupation-based intervention and rote exercise. With the rote exercise, no game was involved, yielding less performance-related feedback; the subject could observe the rotation of the handle, but no



specific meaning was tied with the full range of motion of the handle. However, the occupation-based intervention was more meaningful because there was a dice game attached to spinning the handle. One possible source of enhanced meaning is that the dice the researchers used in the study provided immediate feedback, which enabled the client to see their performance at full range of motion. This provided sensory stimulation by making a noisy sound from falling down a wood ramp, along with the dice having various colors and textures. Subjects found this visually and auditorily arousing. This can also provide symbolic meaning within their culture because, “the best exercise of all are those which cannot only train the body but also delight the mind” (Nelson et al., 1996, p. 639).

When looking at interventions for occupational therapy, rote exercise does not offer the full benefits that occupation-based interventions do. Nelson et al., (1996) identified that less repetitions are performed compared to occupation-based interventions. Rote exercise is not as effective because it does not provide related feedback to the client. For example, when a client is performing rote exercise, such as rotating their hand from pronation to supination, there is no meaning or feedback once the client supinates their hand. In the study by Nelson et al., (1996) the use of a dice game was used to compare rote exercise to rolling dice. The client had less range of motion when completing the rote exercise compared to the occupation-based intervention of rolling dice out of a container. The container only allowed for dice to fall out if it was at full rotation. When a client is unable to see an impact, in this case dice falling at full rotation, they did not receive the most out of an activity and therefore performed less repetitions than they could have (Nelson, et al., 1996). Many clients responded to rote exercise with “That’s all I can do,” and “I’m too tired” (Lang, Nelson & Bush, 1992, p. 610). It is much easier to give up on an activity that is monotone and provides no sensory stimulation (Nelson et al., 1996).

The need for skilled occupational therapy in SNFs is growing. As baby boomers age, the rate of the elderly population seeking care in SNFs is rapidly increasing (Jewell, Pickens, Hersch, & Jensen, 2016). Jewell et al., (2016) found that occupation-based interventions were not completed as often as rote exercises in SNFs. It is important to note the type of intervention being used in practice. Zimmerer-Branum & Nelson (1995) found more repetitions are completed by the client when the interventions are occupation-based. This suggests that choice and meaning are important for performance. Post stroke patients engaging in occupation-based interventions rotated their hand further than when doing rote supination exercise, increasing range of motion (ROM) and restoring motor skills quicker and more effectively (Nelson et al., 1996). Of the elderly residents in SNFs, many of them struggle with hemiplegia. Functional ambulation problems prevent these clients from reaching independence. In order to improve these skills, activities involving weight shifting and standing balance are important to include in interventions, but by adding occupation-based meaning and purpose to the intervention, clients are able to perform more repetitions, increasing their productivity, satisfaction and speeding up their recovery (Ching-Lin Hsieh et al., 1996; Lang et al., 1992).

There are several factors that impact the care being given in SNFs, including the physical environment in which the therapy session is occurring, cultural influences, as well as insurance policies in place within the facility. The challenge to today’s clinician is to encourage meaningful, purposeful occupation while coping with increasing caseloads and added



institutional pressures (Zimmerer-Branum & Nelson, 1995). According to Jewell et al., (2016), environment plays a large role in whether intervention is client-centered and occupation-based. When occupational therapy is performed in the client's room, it is easier to work on more occupation-based interventions, such as toileting, dressing, or sewing, than when performed in a group therapy gym (Jewell et al., 2016). Excess materials in shared gym spaces can cause distraction among clients when undivided attention is necessary for safety concerns, as well as potentially bringing forth past memories or experiences, leading to undesirable results. Planning, staffing, and organization of shared space are all obstacles to consider when using therapy gyms for interventions with clients (Ching-Lin Hsieh et al., 1996).

Cultural meaning also plays a factor in occupational therapy interventions. All clients are unique and give value to different things. It is important to ensure an intervention is specific to every client, as each individual will hold varying values placed on activities, influencing motivation and participation (Nelson et al., 1996).

Lastly, changes in Medicare insurance policies have a significant impact on the way occupational therapists treat patients. Medicare is a health insurance policy that guarantees health-care services for citizens over the age of 65 years and those entitled to Social Security benefits (Kennedy et al., 2002). Medicare Part A changed from a cost-based reimbursement system to a Prospective Payment System (PPS) in which reimbursement is predetermined in an effort to slow the growth of expenditures. As a result of these changes, pressure to be productive and efficient has become the focus among service providers in long-term care, affecting overall quality of care for clients. Over half the occupational therapists in a qualitative study by Kennedy et al., (2002), reported they felt they were less able to focus on what was meaningful to their clients, most of the therapists felt the burden of pressure to be productive, and all the therapists felt the changes posed a threat to their professionalism, including loss of autonomy and independence in judgment and decision-making. A significant decrease in billing for evaluation was also noted, possibly threatening rapport building with patients and producing an incomplete interview and assessment process. This is just one of the discrepancies noted between occupational therapy practices in skilled nursing facilities and American Occupational Therapy Associate (AOTA) Standards of Practice (Kennedy et al., 2002).

Having the background knowledge about SNF facilities in the area the client resides will help in diminishing occupational deprivation. Individuals who are dually enrolled in multiple health insurances are less likely to search for more high-quality SNFs. Zuckerman et al., (2019) suggest that this can go hand in hand with individuals having to choose a SNF quickly after discharge from the hospital, along with their family members' education level, knowledge of quality rating programs, or being discharged from a hospital with fewer resources to assist with these choices. In other words, when choosing a SNF, location and familiarity also play a big role with the type of care patients will be given. Research suggests that it is important for families to be familiar with where the SNF is, what kind of reviews they have, and what they have to offer before deciding on one. According to Nazir, (2014), families should know which post-acute providers can meet their needs, what their readmission rates are, and how quickly they respond to a referral, so they can find the best fitting facility for their loved one.



Another factor impacting quality of care in many facilities is burnout, which not only has a negative impact on care providers, including occupational therapy practitioners, but also negatively affects the residents, with reports of decreased quality of care affecting patient mortality, as well as neglect and abuse (McDonald, Beaulieu, Harbison, Hirst, Lowenstein, Podnieks, & Wahl, 2012; Rafeedie, Metzler, & Lamb, 2018; Wallace, Lemaire, & Ghali, 2009). This can be due to the time constraints and high volume of residents to care for.

There are many differences among SNFs. This includes the geographical region of the SNF and the factors that come with that. Rural communities experience more elderly and poor populations than urban communities. There are also fewer available beds in rural communities due to the smaller population. With fewer residents, SNF workers have more time to focus on therapy with their clients. These encounters are much more effective in terms of time, quality and client centeredness. In addition, rural communities also have a significantly higher ratio of family practitioners to population than urban and suburban areas (Clement et al., 2018). Therefore, residents are seeing therapists and practitioners more often in rural communities. According to Clement et al., (2018), rehospitalization rates are lowest in rural areas and are significantly higher for SNFs in all other locations, this is due to the high quality of care for residents. In urban communities, SNFs experience more competition among the facilities, limited time and staff (Clement et al., 2018).

Elderly residents in SNFs choose occupation-based interventions more often than rote exercises. Having a choice matters to clients, as it enhances the quality of performance, purpose, fosters the long-term development of an internal sense of self-efficacy, and is a characteristic of basic human dignity (Zimmerer-Branum & Nelson, 1995). This is relevant to OT, as our main goal is to make therapy fun, individualized and meaningful to the client (Rafeedie et al., 2018).

### **Clinical Bottom Line:**

Older adults in skilled nursing facilities (SNF) are facing declines in occupational performance due to occupational deprivation caused by environmental restrictions (Knecht-Sabres & Guzman, 2016). Because of this, the researchers decided to incorporate the Person-Environment-Occupation (PEO) model when analyzing the literature. The PEO model determines the level of performance in self-care, productivity, and rest and sleep across the lifespan by determining the goodness of fit between person, environment, and occupation (Brown, 2019). In addition, there is a significant number of occupational therapy practitioners working in rural SNFs (American Occupational Therapy Association, 2015). Because of this, it is important to review the research and literature to determine if occupation-based interventions are more effective than rote exercises for elderly residents in SNFs. Because there is a limited amount of research on occupational-based interventions for elderly residents in SNFs, the researchers included other populations that looked at differences in intervention strategies.

Older adults in SNFs around the country are at risk for occupational deprivation for a countless number of reasons. One of the major factors affecting this occupational deprivation is related to environmental restrictions associated with these facilities (Knecht-Sabres & Guzman,



2016). Occupational therapy has much to offer in addressing these concerns; however, organizational and financial structures have begun to limit the profession's impact on these issues (Rafeedie, Metzler, & Lamb, 2018). For example, changes in Medicare and other insurance policies allot less time for therapy sessions, making it challenging for sessions to remain client-centered and occupation-based.

Occupation-based care has many positive influences on older adults in SNFs, such as adding purpose and meaning to the clients' lives, decreasing loneliness, and increasing self-efficacy (Ching-Lin Hsieh, Nelson, Smith, & Peterson, 1996). It also leads to more client satisfaction, motivation, generalization of knowledge, decreased recovery time, and increased transfer of learning as compared to rote exercise (Rostami, Akbarfahimi, Hassani Mehraban, Akbarinia, & Samani, 2017). In addition, more compliance, willingness to participate, and improved performance was noted when interventions were client-centered and occupation-based (Zimmerer-Branum & Nelson, 1995). With occupation-based interventions, an increase in repetitions performed was noted (Zimmerer-Branum & Nelson, 1995), as well as further range of motion was observed in clients (Nelson, et al., 1996). Clients also stated that it was easier to give up on activities that were monotonous and provided little to no meaning to them (Nelson et al., 1996).

With all the research pointing to the benefits of occupation-based interventions, Jewell, Pickens, Hersch, & Jensen, (2016) found that rote exercises were still being completed more often than occupation-based interventions in SNFs. Jewell et al., (2016) also found that the location of the intervention matters when determining whether it can be occupation-based. Due to the lack of privacy in typical therapy gyms, it is more likely to see rote exercises being performed in these settings as compared to the clients' room or a private treatment room. Private areas allow for more personal occupations to be addressed and worked on in therapy sessions (Jewell et al., 2016).

Lastly, skilled nursing facilities in rural areas typically see less residents, which allows therapists to spend more time focusing on each client, making sure the interventions are occupation-based. These encounters are much more effective in terms of time, quality, and client centeredness (Clement, Khushalani, Baernholdt, 2018).

As occupational therapy students, the researchers believe it is important to center interventions around occupations. This brings a bias to the research that was conducted because it brings more of a focus on occupation rather than rote exercise. Another bias that stemmed from the research is a lack of generalizability from focusing on a specific population. Lastly, the researchers were students rather than clinicians practicing in the field; therefore, there is a lack of experience in this area.

The research is beneficial to occupational therapy (OT) because, as a profession, it is OTs responsibility to give our clients the best possible care integrated with what is most important to them. Collaboration among team members and other clinicians, such as physical therapists, speech-language pathologists, social workers, and family members is equally important when implementing occupation into client care. This increases consistency across care and bridges the



gap between communication amongst everyone involved. Based on these findings, it is recommended that OTs implement occupation-based interventions with elderly residents in SNFs as often as possible, as it increases self-efficacy, motivation, performance, and quickens recovery.



## References

- American Occupational Therapy Association (2015). *2015 Salary and workforce survey*.  
<https://www.aota.org/~media/Corporate/Files/Secure/Educations-Careers/Salary-Survey2015-OTA-Workforce-Salary-Survey-LOW-RES.pdf>
- Aud, M. A., & Rantz, M. J. (2005). Admissions to skilled nursing facilities from assisted living facilities. *Journal of Nursing Care Quality*, *20*(1), 16-25.
- Blank, A., Harries, P., & Reynolds, F. (2015). Without occupation you don't exist: Occupational engagement and mental illness. *Journal of Occupational Science*, *22*, 197-209.
- Brown, C. E. (2019). Ecological models in occupational therapy. In B. A. B. Schell & G. Gillen (Eds.), *Willard & Spackman's occupational therapy* (13<sup>th</sup> ed., pp. 624-629). Philadelphia, PA: Wolters Kluwer.
- Ching-Lin Hsieh, Nelson, D. L., Smith, D. A., & Peterson, C. Q. (1996). A comparison of performance in added-purpose occupations and rote exercise for dynamic standing balance in persons with hemiplegia. *American Journal of Occupational Therapy*, *50*(1), 10-16.
- Clement, J., Khushalani, J., Baernholdt, M. (2018) Urban-rural differences in skilled nursing facility rehospitalization rates. *Journal of Post-Acute and Long-Term Care Medicine*, *19*, 1-5. doi: <https://doi.org/10.1016/j.jamda.2018.03.001>
- Dictionary.com (2020). *Rote*. Retrieved from <https://www.dictionary.com/browse/rote>.
- Jewell, V. D., Pickens, N. D., Hersch, G., & Jensen, G. (2016). An exploration into occupation-centered practice in skilled nursing facilities. *Physical & Occupational Therapy in Geriatrics*, *34*(1), 43-56.
- Kennedy, J., Maddock, B., Sporrer, B., & Grenne, D. (2002). Impact of Medicare changes on occupational therapy in skilled nursing facilities: pilot study. *Physical & Occupational Therapy in Geriatrics*, *21*(2), 1-13.
- Knecht-Sabres, L., & Guzman, R. (2016). Creative ways to decrease occupational deprivation in skilled nursing facilities. *Communique*, *2*, 1-6.
- Lang, E. M., Nelson, D. L., & Bush, M.A. (1992). Comparison of performance in materials-based occupation, imagery-based occupation, and rote exercise in nursing home residents. *American Journal of Occupational Therapy*, *46*(7), 607-611.
- McDonald, L., Beaulieu, M., Harbison, J., Hirst, S., Lowenstein, A., Podnieks, E., & Wahl, J. (2012). Institutional abuse of older adults: What we know, what we need to know.



*Journal of Elder Abuse and Neglect*, 24, 138–160. <https://doi.org/10.1080/08946566.2011.646512>

- Nagayama, H., Kobayashi, N., Ishibashi, Y., Kobayashi, R., Murai, C., Yamauchi. (2018). Cost and outcome of occupation-based practice for community dwelling frail elderly: a pilot study. *Dove Press Journal: Clinical Intervention in Aging*, 13, 1177-1182
- Nazir, A. (2014). Location, location, location doesn't work for post-acute care choices. *Hospital Case Management: The Essential Guide to Hospital-Based Care Planning*, 11, 145-160
- Nelson, D.L., Konosky, K., Fleharty, K., Webb, R., Newer, K., Hazboun, V.P., Fintane, C., & Licht, B.C. (1996). The effects of an occupationally embedded exercise on bilateral assisted supination in persons with hemiplegia. *American Journal of Occupational Therapy*, 50(8), 639-646.
- Nielson, L. T., Peterson, S. K., Nielson, V. C., Strom, J., Ehlers, M. M., Bjerrum, M. (2017). What are the short-term and long-term effects of occupation-focused and occupation-based occupational therapy in the home on older adults' occupational performance? A systematic review. *Scandinavian Journal of Occupational Therapy*, 24(4), 235-248. <http://dx.doi.org/10.1080/11038128.2016.1245357>
- Rafeedie, S., Metzler, C., & Lamb, A. J. (2018). Opportunities for occupational therapy to serve as a catalyst for culture change in nursing facilities. *American Journal of Occupational Therapy*, 72(4), 1-6. <https://doi.org.ezproxylr.med.und.edu/10.5014/ajot.2018.724003>
- Reynolds, M., Volkmer, K., Jewell, V., Russell, M. (2019). Creative solutions for implementing occupation-centered practice in skilled nursing facilities. *American Occupational Therapy Association: Continuing Education Article, CE-1- CE-9*.
- Rostami, H. R., Akbarfahimi, M., Hassani Mehraban, A., Akbarinia, A. R., & Samani, S. (2017). Occupation-based intervention versus rote exercise in modified constraint-induced movement therapy for patients with median and ulnar nerve injuries: a randomized controlled trial. *Clinical Rehabilitation*, 31(8), 1087–1097.
- Wallace, J. E., Lemaire, J. B., & Ghali, W. A. (2009). Physician wellness: A missing quality indicator. *Lancet*, 374, 1714–1721. [https://doi.org/10.1016/S0140-6736\(09\)61424-0](https://doi.org/10.1016/S0140-6736(09)61424-0)
- Zimmerer-Branum, S., & Nelson, D. L. (1995). Occupationally embedded exercise versus rote exercise: A choice between occupational forms by elderly nursing home residents. *American Journal of Occupational Therapy*, 49(5), 397–402
- Zuckerman, D. R., Wu, S., Chen, M. L., Joynt Maddox, E. K., Sheingold, H. S., Epstein, M. A. (2019). The five-star skilled nursing facility rating system and care of disadvantaged populations. *Journal of the American Geriatrics Society*, 67(1), 108-114





M. M. Brokaw, H. N. Longtin, & S. J. Schumacher, 2020

©2020 by M. M. Brokaw, H. N. Longtin, & S. J. Schumacher. This work is licensed under the Creative Commons Attribution International license (CC BY). To view a copy of this license, visit <https://creativecommons.org/licenses/by/4.0/>



M. M. Brokaw, H. N. Longtin, & S. J. Schumacher, 2020

