UNIVERSITY of INDIANAPOLIS®

School of Occupational Therapy

Implementation of a Transfer Training Program for Non-licensed Patient Care Assistants

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Abstract

A five-week transfer training program for the certified nursing assistants, personal service aids, home service aids, and student certified nursing assistants was implemented at Bell Trace, an independent and assisted living, short-term rehabilitation, and long-term care facility in Bloomington, Indiana. Using the Person-Environment-Occupation-Performance model (Baum, Christiansen, & Bass, 2015) and Biomechanical frame of reference (Cole and Tufano, 2020) as overarching guidelines, this program was designed around concepts from the coaching training (Jordan et al., 2018) and the microlearning model (Mak et al., 2021). A pre-post test was conducted to determine the effectiveness of the program. Results from a t-test, found a significant improvement in the attitude and knowledge scores of the program participants. A survey modified from Bai, et al, 2018 further explored the effectiveness of the training program. Program participants reported the training was effective and predicted it would be useful to prevent staff injuries and improve patient care.

Introduction

Bell Trace is a fifteen-acre complex in Bloomington, Indiana owned by CarDon, a family-owned company founded in Greenwood, IN in 1977. Bell Trace offers independent living, assisted living, short-term rehabilitation, and long-term care. The facility also offers outpatient therapy services and home health to assisted and independent living residents. Due to the variety of services, the residents' demographics can vary. The long-term care facility houses a 40-45 bed long-term care unit and a 40-45 bed rehabilitation unit. Across the entire facility, most of the residents are 65 and older with a few exceptions for early-onset diseases. After a detailed assessment of the facility, the need for continued staff education on transfers emerged as a consistent topic. Numerous nursing, therapy, and facility managers believe a transfer training program rooted in proper biomechanics would reduce employee injury and improve patient care.

High-quality patient care is one of the top priorities at Bell Trace and the facility consistently looks for new ways to increase the safety of its patients and staff. Staff members will complete a five-week training program designed around concepts from the coaching training model (Jordan et al., 2018) and the microlearning model (Mak et al., 2021). With the night-time staff completing a condensed version of the training. The interactive lecture followed by additional opportunities for interactive practice provides the program participants with the best learning environment. Two theories will guide the development of the transfer training project: Person-Environment-Occupation-Performance model (Baum, Christiansen, & Bass, 2015) and the biomechanical frame of reference (Cole and Tufano, 2020). The program's effectiveness will be determined by the results of a pre-test and post-test modified from the Factors Influencing Training Transfers Questionnaire (Bai, et al, 2018) and the Center for Disease Control and Prevention (2022) with construct validity from expert review. Bell Trace will monitor the long-term impact of the transfer training program through their workplace injury reporting.

Background

Bell Trace is a continuum of care facility with two buildings that house several types of patients. Little Bell is a rehab-to-home and long-term care facility that provides care for patients who are fully dependent to transfer and patients that are able to transfer with little to no assistance. Big Bell is an independent and assisted living facility that requires its residents to be able to transfer with no more than moderate assistance provided by one of the staff members. With the continuum of care, patients from Big Bell are able to transfer to Little Bell once they require more assistance than Big Bell can provide and vice versa. At times, this flow of patients between buildings is a source of contention. The certified nursing assistants (CNAs) transfer patients at Little Bell with different techniques and cues than the personal and home service assistants (PSAs/ HSAs) at Big Bell. The CNAs at Little Bell work closer with the therapy staff and have more opportunities for staff education than the PSAs and HSAs. When patients return to Big Bell, the patients are unfamiliar with the transfer techniques of the Big Bell staff, making consistent patient care difficult to achieve.

One of the challenges regarding patient care at Bell Trace is the difference in staff qualifications between buildings. Little Bell employs CNAs whereas Big Bell hires individuals to be PSAs and HSAs. CNAs are required to complete "at least 75 initial training hours with a minimum of 16 clinical hours and 12 annual in-service training hours" (Trinoff, 2016, p. 501). Whereas, PSAs and HSAs do not have standardized training or education requirements. However, both groups perform the same tasks such as providing showers and assistance for various activities of daily living. Staff at both facilities have physically demanding jobs and are at higher risk for workplace injuries due to the physical nature of the job, the demands of long working hours, and the extreme strain or force applied to the shoulder or back (Van Wyk, 2009). Although there have not been a large number of recorded worker injuries at Bell Trace, with the CNAs/ PSAs/ HSAs providing at least 65 percent of the daily care as identified in Trinkoff's

(2016) article on resident care, this creates many opportunities for Bell Trace staff to be injured. During the needs evaluation of the site, staff members participating in the study stated there have been incidents of straining their back or having minor injuries attempting to move a patient, but they did not report those minor incidents to management. According to a study by D'arcy et al. (2016), a facility where an injury prevention program exists is 39% less likely for a staff member to be injured on the job. A transfer training program will provide staff with the opportunity to bridge the gap between staff transfer techniques in both buildings as well as educate staff members on the proper biomechanics for safe transfers to reduce workplace injury.

To address the gaps in transfer techniques, several individuals were involved in the development of the project. One-on-one meetings occurred with the director of nursing, the assistant director of nursing, and the therapy supervisors. The nursing and therapy supervisors were very interested in the project and felt it could improve the well-being and work satisfaction of the staff by reducing the mild strains staff experience on a frequent basis and improving the level of patient care provided by the staff. Explementary work satisfaction and staff well-being in addition to high-quality patient care are what CarDon facilities strive to achieve. Each building had different approaches to ensure staff engaged in the opportunity for continuing education, but each facility was provided a QR code linked to a Google Form to provide suggestions for the training. With the transfer training designed to fit the needs of the staff, the study is more likely to be well received (Hunter et al. 2019). Following staff recruitment, staff members in both buildings were willing to sign up for the study due to the incentives and personal stake in the continuing education plan.

Feedback provided by staff members and supervisors, in addition to an examination of the continuing education literature, was compiled to design a five-week training program for day staff and a condensed training program for night staff. Keeping with CarDon's mission for community engagement and community partnership, a two-week training program was offered to

the Morgan County Community College (MCCC) certified nursing assistant students. The program was designed from a coaching training intervention model (Jordan et al., 2018) and microlearning (Mak et al., 2021). By using a coaching training model instead of the standard lecture-based learning method, the staff members are provided with an opportunity to engage with the material in real-world simulated lessons but still receive handouts and informational videos to continue their learning (Noetel, et al, 2021). Following each training session with opportunities for at least one microlearning follow-up per session provides the program participants the flexibility to learn the skills taught in training but reduces the time spent in a classroom setting. Additionally, microlearning opportunities while performing hands-on patient care allow for the development of more personalized patient care (Varadhan, 2021). The study design addresses limitations from prior studies.

To address the limitation of lack of staff participation as noted by Gray et al. (2016) in prior studies, staff were provided with multiple opportunities to be involved in the design of the program. Yeatts 2010 found a training program designed with feedback from those participating in the study had a very positive impact on the CNAs' attitude toward their job which may increase each participant's likelihood to continue using the correct transfer form following the training program. Two additional adjustments were made to correct limitations from other studies such as lack of time and small sample sizes. The transfer training program was designed to have very short sessions to reduce the amount of time the CNAs are not able to assist patients. Another issue noted by Van Wyk et al. (2009) was the small number of program participants who came from the same background. The transfer training program will examine the increase in knowledge and improved attitude toward the study from three participant pools. Furthermore, this study explores transfer techniques with two different buildings of patients, providing more than one clinical site in this study as compared to Van Wyk's study (2009).

Guiding Theory

The Person-Environment-Occupation-Performance model provides the necessary guidelines to create a training program for CNAs working in a long-term care facility and PSAs/ HSAs in assisted living and independent living. The doctoral capstone will explore ways staff at Bell Trace can increase their knowledge in transfer techniques, body positioning, and correctly moving the patient. The PEOP model offers an analysis of the entire organization which would allow systematic changes (Baum, Christiansen, & Bass, 2015). By changing the approach at the organizational level, training will be offered to current staff as well as new hires. The model will guide the collection of data through assessments that evaluate the person, environment, occupation, and performance on an organizational level. The site does not offer transfer training, but a need is present for staff members to have opportunities for additional training. The occupational therapists at the facility have noticed a lack of biomechanical knowledge in the way the staff manages their patients.

Deformities lead to a lack of function and revert the progress made in both occupational and physical therapy. Placing patients in incorrect positions within a sedentary position could cause great harm to the patient. A training program with an organizational view (PEOP) will guide the staff in the correct body positioning within wheelchairs and the proper biomechanical form to perform each transfer technique. The training program will be created through the Biomechanical frame of reference and its principles of the base of support and center of gravity (Cole and Tufano, 2020). By having a sound understanding of anatomical principles, the staff will be able to provide a higher level of care to their patients. The facility, Bell Trace, will benefit from better-trained employees by seeing an increase in staff compliance and a decrease in patient and staff injury.

Project Design

The project was designed to improve consistency in patient care and prevent workplace injuries and create a program that could be implemented at both Bell Trace buildings. This program will create a standardized approach to patient transfers that will be used across buildings. The pilot study will determine what changes may need to be made to the training material to create effective transfer training for new staff members hired at Little Bell and Big Bell. A pre-training and post-training survey was created to evaluate the program participants' change in attitudes as well as knowledge based on the study objectives. A delayed post-training survey assesses the program's overall effectiveness in addition to the pre-training and post-training surveys. The attitudes portion of the pre-training & post-training survey and the overall training program effectiveness were modified from the Factors Influencing Training Transfer (FITT) with the author's permission (Bai, et al, 2018) (Appendix A). This assessment tool was developed for nurses to determine the retention of information following training. The validity and reliability of the FITT tool were studied extensively and construct validity & internal consistency were established. To maintain the validity and reliability of the tool, two subsections: factors three and five which were overall training effectiveness and attitudes respectively, were used in its entirety. However, the knowledge portion of the pre-survey and post-survey was not tested by a large study.

The knowledge portion of the pre-training and the post-training survey was created to mirror the learning objectives for the transfer training using *the Recommended Training Effectiveness Questions for Postcourse Evaluations.* This user guide was developed by the Centers for Disease Control and Prevention to create an evaluation "that can give better predictions about learning outcomes" (CDC, 2019, p. 4). Additionally, the knowledge questions were evaluated by an expert in the field to establish construct validity. Within each learning module, competency forms were modified from the Washington State Department of Health National Nurse Aide

Assessment Program (NNAAP) (2019). Each transfer competency form will be completed during the one-on-one microlearning sessions following the discussion-based lecture session.

The program will occur over the course of five weeks, but the number of sessions per group varies. Appendix B displays the number of sessions each group completed as well as the material covered in each session. The following observation days provide different options for follow-up based on the program participant's work schedule. Due to an inconsistent work schedule, training sessions may have to be completed individually, limiting the discussion during the initial training module; however, the microlearning sessions provide opportunities to discuss transfers if a patient requires more than one aid to move. The biggest challenge to implementing this project was working around different schedules and the incredibly busy workday for the program participants. Furthermore, identifying appropriate times to watch the program participants transfer patients for the microlearning proved to be difficult. This was partially due to resistance from the aides being watched as they provide patient care. Even with the challenges facing the project, the supervisors and program participants, particularly the participants at Big Bell and the student nurses, were excited to complete the study and looking forward to the learning outcomes.

Project Outcomes

Survey data was imported into IBM SPSS Statistics (Version 29) for data analysis and set the alpha level of statistical significance at less than or equal to 0.05. Program participants completed a pre-test and post-test survey to determine if there was a difference in attitudes and knowledge due to the implementation of the transfer training program (Appendix C). The Likert items from the attitude section of the survey were modified from the Factors Influencing Training Transfers Questionnaire (FITT) (Bai, et al, 2018) with the author's written permission. The Likert scale was scored from one as strongly agree and five as strongly disagree. The knowledge portion of the survey was created using the guidelines from the Center for Disease Control and Prevention: *Recommended Training Effectiveness Questions for Postcourse*

Evaluations User Guide (2022) with construct validity from an expert reviewing each Likert question, scored one as not knowledgeable at all to five as extremely knowledgeable (Appendix C). Each Likert item was explored through a calculation of the mean, standard deviations, and confidence intervals for all participants as listed in Table 1. The mean for each attitude and knowledge question was used to run a paired t-test to determine the difference in pre-test and post-test responses. An additional section, the overall training effectiveness, from the FITT questionnaire, was included in the post-test survey along with the attitudes and knowledge questions to gauge the program participants' perceptions of the effectiveness of the training program through frequencies (Table 2).

There was a significant difference in attitudes regarding the transfer training program between the pre-test and the post-test paired t-test, t (3.80) = 5, p = .013. Program participants had extremely positive attitudes regarding the transfer training with the responses *strongly agree* and *agree* being the most frequently selected options on the Likert scale. There was a significant difference between the pre-test and post-test knowledge paired t-test, t (11.05) = 5, p = .0000024 for the group. The student CNAs and staff from Big Bell demonstrated the most improved knowledge scores, particularly with the question *Rate your knowledge on each of the specific steps for the following transfers: sit-stand, squat pivot, stand pivot, sliding board, and dependent transfers* with a mean difference of m = 1.25 compared to m = .83 (Table 3). The difference in knowledge acquired from the training program could be attributed to the level of education required prior to the transfer training. Staff members at Big Bell do not have any training requirements that must be met before working with the patient. Additionally, the student CNAs were only part of the way through their program, and they had little to no experience transferring patients. The CNAs at Little Bell had more transfer experience as well as more education than the other program participants.

To determine how effective each program participant believed the training program was, an overall effectiveness true and false category was added to the post-test. This section was modified from the Factors Influencing Training Transfers Questionnaire (FITT) (Bai, et al, 2018) (Appendix C). The frequencies for each question, as seen in table two, display a unanimous agreement that the training program was effective.

Summary

Bell Trace's aim is to improve the continuity of care between the independent, assisted living, long-term care, and rehabilitation divisions to ensure high-quality patient care and staff satisfaction. This objective was achieved by developing a transfer training program designed to improve clinical continuity across levels of care with a long-term goal of reducing the number of injuries for CNAs and PSAs/ HSAs. Bell Trace supervisors will continue to monitor the impact of the transfer training program to determine if there was a reduction in the number of injuries for the CNAs and PSAs/ HSAs. Therapy and nursing supervisors at the independent and assisted living facility were interested in the injury reduction aspect of the program as well as using the program as a template for future facility-mandated competencies for patient care providers.

Using the PEOP and biomechanical theories to guide the development of the training material content, program participants underwent a five-week program training program designed around concepts from the coaching training model (Jordan et al., 2018) and the microlearning model (Mak et al., 2021). Each week focused on a different topic from biomechanical principles, seven transfer techniques, fall recovery strategies, to wheelchair positioning. Program participants completed a pre-test and post-test survey to determine the effectiveness of the program. A significant improvement in attitudes, $t(3.80) = 5$, $p = .013$, and knowledge scores, $t(11.05) = 5$, $p = .0000024$, was identified with a t-test, indicating a positive outcome of the training program. Furthermore, an overwhelming majority of the program participants, as noted in table two, agreed that the transfer training program was effective and

useful for the improvement of everyday transfers. Several staff members stated their confidence in their ability to transfer patients has greatly increased following the training. Thus improving the staff's ability to provide high-quality patient care across the continuum of care at Bell Trace.

Conclusion

Designing a transfer training program for an entire campus was a complicated process due to the irregular schedules of staff in either building and the diverse patient population. However, the results far outweigh the difficult planning process and implementation. Staff members demonstrated improved knowledge of transfer techniques and an enhanced understanding of biomechanical principles will reinforce proper transfer techniques to attempt to reduce the prevalence of staff injury. Multiple program participants stated they felt much more confident in their ability to transfer patients and provide high-quality patient care to patients that are more difficult to transfer. The therapy supervisor will provide this transfer training to newly hired CNA and PSA/HSA staff during staff orientation. The training for new staff will utilize the handouts, videos, and a presentation designed specifically for new hires to ensure a successful transfer of learning from the training session to patient care.

The transfer training program was designed through the unique lens of occupational therapy and was created to recognize all aspects of occupational performance, not just the technical aspect of how to perform a transfer. Program participants learned how to communicate with the patients, how to adjust cueing styles based on the patient and their diagnosis, and how to prepare the environment to optimize safety. It would be beneficial for future occupational therapy studies to explore the long-term effects of a transfer training program to determine how well the training program reduces injuries and improves patient care.

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Table 1

Descriptive Statistics for Pre-training and Post-training Survey

Section	Question	Mean		Standard Deviation		Confidence Interval	
		Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Attitudes	1	1.14	1.09	.351	.294	.98-1.29	.96-1.05
	2	1.64	1.18	.581	.501	1.38-1.89	.96-1.4
	3	1.32	1.05	.477	.213	1.11-1.53	.95-1.14
	4	1.27	1.05	.456	.213	1.07-1.47	.95-1.14
	5	1.23	1.09	.429	.294	1.04-1.42	.96-1.22
	6	1.27	1.05	.456	.213	1.07-1.47	.95-1.14
Knowledge	1	2.42	4.17	1.08	.835	1.73-3.11	3.64-4.70
	2	3.25	4.67	1.14	.651	2.53-3.97	4.25-5.08
	3	3.92	4.83	1.08	.389	3.23-4.61	4.59-5.08
	4	4	4.83	1.13	.389	3.28-4.72	4.59-5.08
	5	2.92	4.83	2.5	.577	1.37-4.46	4.47-5.2
	6	3.92	4.83	.793	.389	3.41-4.42	4.59-5.08

Table 2

Frequency of the Overall Effectiveness for the Transfer Training

	Frequency	
Question	True	False
1	22	0
2	22	0
3	22	0
4	22	0
5	22	0
6	22	0
7	21	1
8	22	0
9	22	0

Table 3

T-test for Rate your knowledge on each specific step of the transfer

Group	Mean Difference	T-value	Degrees of Freedom	P-value
Big Bell	1.25	3.191	11	.009*
Little Bell	.83	2.71	5	.042
Student CNAs	1.25	5.00	3	.015*

*Note- P < .05**

Appendix B

Figure 1

Schedule for Transfer Training Program

<table>
<tr><td colspan="7">Master Schedule for Little Bell and Big Bell Training Program</td></tr>
<tr><td>Week/ Session Number:</td><td>Monday</td><td>Tuesday</td><td>Wednesday</td><td>Thursday</td><td>Friday</td><td>Training Handouts</td></tr>
<tr><td rowspan="6">Week 4- Session 1:</td><td>Jan. 30</td><td>Jan. 31</td><td>Feb. 1</td><td>Feb. 2</td><td>Feb. 3</td><td rowspan="2"></td></tr>
<tr><td>10:00 AM- Training Option 1 at LB Day</td><td>10:00 AM- Training Option 3 at LB Day</td><td>Observation at LB</td><td>Observation at LB</td><td>Observation at LB</td><td rowspan="2">Ses. 1: biomechanical, gait belt, sit-stand</td></tr>
<tr><td>2:30 PM- Training Option 2 at LB Day</td><td>2:30 PM- Training Option 4 at LB Day</td><td>Observation at LB</td><td>Observation at LB</td><td>Observation at LB</td></tr>
<tr><td colspan="2" rowspan="2"></td><td>10:00 AM- Training Option 1 at BB Day</td><td>10:00 AM- Training Option 3 at BB Day</td><td>Observation at BB</td><td rowspan="2">Ses. 1: biomechanical, gait belt, sit-stand</td></tr>
<tr><td>2:30 PM- Training Option 2 at BB Day</td><td>2:30 PM- Training Option 4 at BB Day</td><td>Observation at BB</td></tr>
<tr><td>LB Night Training- 6:30 and 7:30</td><td>Observation</td><td>Observation</td><td>Observation</td><td>Observation</td><td>Ses. 1: biomechanical, gait belt, sit-stand/ bed mobility and verbal cues/ squat pivot</td></tr>
<tr><td rowspan="2">Week 5- Session 1</td><td>Feb. 6</td><td>Feb. 7</td><td>Feb. 8</td><td>Feb. 9</td><td>Feb. 10</td><td></td></tr>
<tr><td>5:00 PM- Training at BB Night</td><td>Observation</td><td>Observation</td><td>Observation</td><td>Observation</td><td>Ses. 1: biomechanical, gait belt, sit-stand/ bed mobility and verbal cues/ squat pivot/ stand pivot/ slide board/ positioning</td></tr>
</table>

Week 5-Session 2	10:00 AM-Training Option 1 at LB Day	10:00 AM-Training Option 3 at LB Day	Observation at LB	Observation at LB	Observation at LB	Ses. 2: bed mobility, verbal cues, squat pivot, and stand pivot
	2:30 PM-Training Option 2 at LB Day	2:30 PM-Training Option 4 at LB Day	Observation at LB	Observation at LB	Observation at LB	
	Observation at BB	Observation at BB	10:00 AM-Training Option 1 at BB Day	10:00 AM-Training Option 3 at BB Day	Observation at BB	Ses. 2: bed mobility, wheelchair positioning, and verbal cues
	Observation at BB	Observation at BB	2:30 PM-Training Option 2 at BB Day	2:30 PM-Training Option 4 at BB Day	Observation at BB	
				7:15 AM NS Training Session	Observation	Ses. 1: biomechanical, gait belt, sit-stand/ bed mobility and verbal cues, squat pivot/ stand pivot
Week 6-Session 2	Feb. 13	Feb. 14	Feb. 15	Feb. 16	Feb. 17	
	LB Night Training-6:30 and 7:30	Observation	Observation	Observation	Observation	Ses. 2: stand pivot/ slide board/ dependent and positioning
Week 6-Session 3	10:00 AM-Training Option 1 at LB Day	10:00 AM-Training Option 3 at LB Day	Observation at LB	Observation at LB	Observation at LB	Ses. 3: Slide board
	2:30 PM-Training Option 2 at LB Day	2:30 PM-Training Option 4 at LB Day	Observation at LB	Observation at LB	Observation at LB	
	Observation at BB	Observation at BB	10:00 AM-Training Option 1 at BB Day	10:00 AM-Training Option 3 at BB Day	Observation at BB	Ses. 3: squat pivot/ stand pivot
	Observation at BB	Observation at BB	2:30 PM-Training Option 2 at BB Day	2:30 PM-Training Option 4 at BB Day	Observation at BB	

				7:15 AM NS Training Session	Observation	Ses. 2: slide board and dependent transfer
	Feb. 20	Feb. 21	Feb. 22	Feb. 23	Feb. 24	
Week 7-Session 4	10:00 AM-Training Option 1 at LB Day	10:00 AM-Training Option 3 at LB Day	Observation at LB	Observation at LB	Observation at LB	Ses. 4: Dependent transfer, wheelchair positioning, and Post-survey
	2:30 PM-Training Option 2 at LB Day	2:30 PM-Training Option 4 at LB Day	Observation at LB	Observation at LB	Observation at LB	
	Observation at BB	Observation at BB	10:00 AM-Training Option 1 at BB Day	10:00 AM-Training Option 3 at BB Day	Observation at BB	Ses. 4: slide board and Post-training survey
	Observation at BB	Observation at BB	2:30 PM-Training Option 2 at BB Day	2:30 PM-Training Option 4 at BB Day	Observation at BB	
Week 8-Session 5	Feb. 27	Feb. 28	Mar. 1	Mar. 2	Mar. 3	
	10:00 AM-Training Option 1 at LB Day	10:00 AM-Training Option 3 at LB Day	Observation at LB	Observation at LB	Observation at LB	Ses. 5: Make-up Week
	2:30 PM-Training Option 2 at LB Day	2:30 PM-Training Option 4 at LB Day	Observation at LB	Observation at LB	Observation at LB	
	Observation at BB	Observation at BB				
	Observation at BB	Observation at BB				

Key:

Little Bell (LB) Day Staff	Big Bell (BB) Day Staff	Nursing Students (NS)	Little Bell (LB) Night Staff	Big Bell (BB) Night Staff

Appendix C

Figure 1

Pretraining Attitude Survey

1=strongly agree, 2= agree, 3= neutral, 4= disagree, 5=strongly disagree

Attitudes					
Question:	**1**	**2**	**3**	**4**	**5**
I believe the training should be shared and applied in the organization					
The purpose of my attendance in the training is to resolve the problem in the workplace with the use of my training					
I have a duty to use the training in the workplace effectively after the training					
The application of the training is good for my personal development					
I will learn actively in the training because I treasure this training opportunity					
Effective use of the training meets the requirement of the development of my organization					

Note: Modified from the FITT Questionnaire (Factors Influencing Training Transfers)

Figure 2

Pretraining Knowledge Survey

1= not at all knowledgeable, 2= slightly knowledgeable, 3= moderately knowledgeable

4=very knowledgeable, 5= extremely knowledgeable

Knowledge					
Question:	**1**	**2**	**3**	**4**	**5**
How much do you know about the concept of biomechanical principles?					
How much do you know about the concept of wheelchair positioning?					
I ensured I created a safe transfer environment with the use of a gait belt and a clear pathway for the transfer.					
I helped my patient understand all the steps of the transfer.					
I understand how to correctly size a hoyer lift sling to each patient.					
Rate your knowledge on each of the specific steps for the following transfers: sit-stand, squat pivot, stand pivot, sliding board, and dependent transfers.					

Do you feel like you have strained yourself (i.e. back, neck, etc) or injured yourself as you transfer a patient? Does this happen often? Please explain the situation.

Figure 3

Porttraining Attitude Survey

1=strongly agree, 2= agree, 3= neutral, 4= disagree, 5=strongly disagree

Attitudes					
Question:	**1**	**2**	**3**	**4**	**5**
I believe the training should be shared and applied in the organization					
The purpose of my attendance in the training is to resolve the problem in the workplace with the use of my training					
I have a duty to use the training in the workplace effectively after the training					
The application of the training is good for my personal development					
I learned actively in the training because I treasured the training opportunity					
Effective use of the training meets the requirement of the development of my organization					

Note: Modified from the FITT Questionnaire (Factors Influencing Training Transfer)

Figure 4

Posttraining Knowledge Survey

1= not at all knowledgeable, 2= slightly knowledgeable, 3= moderately knowledgeable
4=very knowledgeable, 5= extremely knowledgeable

Knowledge					
Question:	**1**	**2**	**3**	**4**	**5**
How much do you know about the concept of biomechanical principles?					
How much do you know about the concept of wheelchair positioning?					
I ensured I created a safe transfer environment with the use of a gait belt and a clear pathway for the transfer.					
I helped my patient understand all the steps of the transfer.					
I understand how to correctly size a hoyer lift sling to each patient.					
Rate your knowledge on each of the specific steps for the following transfers: sit-stand, squat pivot, stand pivot, sliding board, and dependent transfers.					

Figure 5

Posttraining Overall Effectiveness Survey

Overall Training Effectiveness		
Question:	**True**	**False**
The interactive atmosphere in the training could help me grasp the training content		
The training method was versatile and flexible which helped me improve my learning efficiency		
The training method was practice-oriented which helped me apply my learning on the job easily		
The training was trainee-centered which facilitated my grasp of the training content		
The training will help me resolve substantive matters in the workplace		
The trainer gave me an evaluation and feedback about my learning after the training		
The training focused on the problems to be resolved in the workplace		
The training helps me improve my work capability		
The training matched my work requirements		

Appendix D

Table 1

Capstone Project and Experience Goals

Week	DCE Stage	Weekly Goal	Objectives	Tasks	Date complete
1	Orientation & Screening/ Evaluation	A- The student will gain administration skills during the capstone project by sitting in on Medicare care plan meetings and learning how to manage rehabilitation staff. B- After the first three weeks of the capstone experience, all checklists and training materials will be prepared for the CNA training program to increase CNA knowledge in care for rehabilitation care at Bell Trace.	A- The student will attend at least 5 Clinical Meetings throughout the capstone experience.	A- I attended several meetings this week, including my first Clinical Meeting where patient concerns were discussed with various partners. I was reoriented to the site and managers/ supervisors at Bell Trace as I attended different meetings. I was at Bell Trace for my first Level II fieldwork rotation. This allowed me an opportunity to discuss the project and receive feedback from stakeholders. B- I used the information gained during the meetings to guide me as I began working on my training materials. I spent most of my time this week gathering information and new literature to guide my project.	Jan. 13th
2	Screening/ Evaluation	A- The student will gain experience and knowledge in understanding how to treat patients with dementia by working in the clinic for at	A- The student will downgrade and upgrade intervention plans based on the Brief Cognitive Rating Scale.	A- I treated several patients this week and determined one of the patients would benefit from a cognitive screening. I administered the Brief Cognitive Rating Scale to adjust my treatment plan and education approach based on the results.	Jan. 20th

		least two weeks. B- The student will gain administration skills during the capstone project by sitting in on Medicare care plan meetings and learning how to manage rehabilitation staff. C- After the first three weeks of the capstone experience, all checklists and training materials will be prepared for the CNA training program to increase CNA knowledge in care for rehabilitation care at Bell Trace.	B- The student will learn how to supervise therapists on the rehabilitation staff by shadowing the lead therapist who manages the unit at least once every other week. C- By the second week, the DCE student will design the pre-training survey.	B- I attended the monthly Bridge Meeting between Big Bell and Little Bell which provided me the opportunity to discuss my project. I was able to mention how beneficial my project will be to both buildings. C- I located information to create a pretest and posttest for my training, but I am waiting on responses from the authors to modify them. I continued to work on my training handouts and scheduled time during week three to record my training videos.	
3	Screening/ Evaluation	A- The student will gain experience and knowledge in understanding how to treat patients with dementia by working in the clinic for at least two weeks. B- After the first three weeks of the capstone experience, all checklists and training materials will be prepared for the CNA training program to increase CNA knowledge in care for rehabilitation care at Bell Trace.	A1- The student will learn basic information about dementia screening and assessment tools. A2- The student will downgrade and upgrade intervention plans based on the Brief Cognitive Rating Scale. B1- By the third week, the training modules will be designed. B2- By the second week, the DCE student will design the	A1- I administered the brief cognitive screen as well as the MOCA to a patient this week. A2- The outcomes on the assessments will guide my treatment plan and how I upgrade/ downgrade tasks. B1- All of the training handouts were finished this week. I am waiting to gain access to a video editing program to finish editing some of my videos. The competency sheets for each transfer were modified from the Washington State Department of Health National Nurse Aide Assessment Program (NNAAP).	Jan. 27th

			pre-training survey (late). B3- A logic model will be used to create a master schedule and four session schedules for the program participants to reference as they complete study requirements.	B2- Although one week late, the pre-training and post-training survey was finalized this week. B3- The logic model was modified to create a master schedule for the training modules. Instead of building a graphic to display the schedule, excel was used to outline each session which lead to the end of the program.	
4	Implementation	A- The student will gain administration skills during the capstone project by sitting in on Clinical Meetings and learning how to manage rehabilitation staff. B- The student will gain experience and knowledge in understanding how to treat patients with dementia by working in the clinic for at least two weeks. C- By the fourth week of the capstone experience, the CNA training modules will begin to be taught to the program participants as well as administration of the pre-knowledge and technical skills survey.	A1- The student will attend at least 5 Clinical Meetings throughout the capstone experience. A2- The student will learn how to supervise therapists on the rehabilitation staff by shadowing the lead therapist who manages the unit at least once every other week. B1- The student will learn basic information about dementia screening and assessment tools. B2- The student will downgrade and upgrade intervention plans based on the Brief Cognitive Rating Scale.	A1- I went to the Clinical Meeting and several morning meetings at Big Bell this week. I developed my skills as a supervisor by discussing patient progress and concerns about residents. A2- During the meetings I attended this week, I talked to my capstone advisor about patients that should be screened for therapy services to see if they would benefit from being on caseload. B1- I continued to use the outcome of the Brief Cognitive Screening tool to guide my intervention plans for several of my patients. B2- I reached out to a speech therapist this week to see if he had any ideas for my intervention sessions with a mild cognitively impaired patient. C1- I continued to host training sessions Monday through Thursday at Little Bell and Big Bell. It has been difficult providing the training session to each program participant due to varying schedules, but I	Feb. 3rd

			C1- Over the next five weeks, the training modules will be taught to the CNAs. C2- The DCE student will meet with each CNA at least one time per module to answer questions and observe technical skills.	am able to provide the resources and videos to the participants that cannot attend or reschedule them for a different day. I follow up with them during the week for the microlearning sessions. C2- I have been trying to follow up with each CNA at least one time per week. I may not be able to witness the CNA transfer a patient each time, but the CNA has the opportunity to ask any follow-up questions or provide additional commentary.	
5	Implementation	A- The student will gain administration skills during the capstone project by sitting in on Clinical Meetings and learning how to manage rehabilitation staff. B- The student will gain experience and knowledge in understanding how to treat patients with dementia by working in the clinic for at least two weeks. C- By the fourth week of the capstone experience, the CNA training modules will begin to be taught to the program participants as well	A- The student will attend at least 5 Clinical Meetings throughout the capstone experience. B1- The student will learn basic information about dementia screening and assessment tools. B2- The student will downgrade and upgrade intervention plans based on the Brief Cognitive Rating Scale. C1- Over the next five weeks, the training modules will be taught to the CNAs. C2- The DCE student will meet	A- I attended the Clinical Meeting this week to listen to other staff members discuss patient care. As I learn more about each of the residents, I am able to provide more useful information to the team. B1- I continued to use the data provided from the Brief Cognitive Rating Scale and the MOCA to guide my treatment sessions for my patients with cognitive impairment. B2- Based on the patient's results on the assessment tools, I created an intervention plan for the patients to follow. C1- Training modules are still being implemented with the staff. C2- I have not been able to watch each staff member transfer a patient each week, but I have	Feb. 10th

		as administration of the pre-knowledge and technical skills survey.	with each CNA at least one time per module to answer questions and observe technical skills.	briefly met with them each week to discuss how their progress has been each week.	
6	Implementation	A- The student will gain administration skills during the capstone project by sitting in on Clinical Meetings and learning how to manage rehabilitation staff. B- The student will gain experience and knowledge in understanding how to treat patients with dementia by working in the clinic for at least two weeks. C- By the fourth week of the capstone experience, the CNA training modules will begin to be taught to the program participants as well as administration of the pre-knowledge and technical skills survey.	A1- The student will attend at least 5 Clinical Meetings throughout the capstone experience. A2- The student will learn how to supervise therapists on the rehabilitation staff by shadowing the lead therapist who manages the unit at least once every other week. B1- The student will learn basic information about dementia screening and assessment tools. B2- The student will downgrade and upgrade intervention plans based on the Brief Cognitive Rating Scale. C1- Over the next five weeks, the training modules will be taught to the CNAs. C2- The DCE student will meet with each CNA at least one time per module to answer questions and observe technical skills.	A1- This week at Clinical Meeting, we discussed one patient at length. This patient was becoming more difficult for the staff to manage in an assisted living facility and the managers were trying to determine the best option to care for the patient. It was interesting to watch the managers' thought processes and learn about what they considered most important to address. A2- My capstone advisor was writing the yearly evaluations for the staff she oversaw. We did not discuss specific individual's performances, but we talked about what are good or poor qualities to have in a staff member. B1- I spent the week becoming more familiar with the components of dementia screening tools and assessments and how each section can lead to intervention development. B2- I used the outcomes of the assessment tools to determine what interventions would be best for my cognitively impaired patients. C1- Training modules are still being implemented with the staff. C2- I was able to watch a few staff members perform transfers this week. For those I was not	Feb. 17th

				able to watch, we touched base to see how they felt about the lesson that week. I worked with the staff one-on-one to transfer several specific patients to ensure proper transfer technique was being used.	
7	Implementation	A- The student will gain experience and knowledge in understanding how to treat patients with dementia by working in the clinic for at least two weeks. B- By the fourth week of the capstone experience, the CNA training modules will begin to be taught to the program participants as well as administration of the pre-knowledge and technical skills survey.	A- The student will downgrade and upgrade intervention plans based on the Brief Cognitive Rating Scale. B1- Over the next five weeks, the training modules will be taught to the CNAs. B2- The DCE student will meet with each CNA at least one time per module to answer questions and observe technical skills.	A- I have maintained a steady caseload each day to continue developing my skills as a future practitioner. Not all of my patients are cognitively impaired, but I do have several individuals on my schedule that require assistance with compensatory strategies. B1- Training modules are still being implemented with the staff. B2- There was a COVID-19 outbreak this week which made it difficult to work with all the staff members. Unfortunately, the staff and residents were affected. Therefore, I could not watch the staff transfer patients because many residents tested positive and had to remain in isolation in their rooms. I was able to discuss different patients and related transfer techniques with the staff members.	Feb. 24th
8	Implementation	A- The student will gain administration skills during the capstone project by sitting in on Clinical Meetings and learning how to manage rehabilitation staff.	A1- The student will attend at least 5 Clinical Meetings throughout the capstone experience. A2- The student will learn how to supervise therapists on the	A1- I have been working with a patient that has transitioned between Little Bell and Big Bell several times in both buildings. This has allowed me to provide a very interesting level of care because I know the patient's history so well. I have enjoyed the level of care I can provide and the information I can provide to the interprofessional	Mar. 3rd

		B- The student will gain experience and knowledge in understanding how to treat patients with dementia by working in the clinic for at least two weeks. C- By the fourth week of the capstone experience, the CNA training modules will begin to be taught to the program participants as well as administration of the pre-knowledge and technical skills survey. D- By the eighth week of the capstone experience, the CNA training will be completed and the post-knowledge and technical skills survey as well as the therapist satisfaction survey will be given to the program participants at Bell Trace.	rehabilitation staff by shadowing the lead therapist who manages the unit at least once every other week. B -The student will learn basic information about dementia screening and assessment tools. C1- Over the next five weeks, the training modules will be taught to the CNAs. C2- The DCE student will meet with each CNA at least one time per module to answer questions and observe technical skills. D1- The student will meet with the assistant nursing director at least once to discuss her recommendations and overall thoughts about the training protocol. D2- The CNAs, therapists, and nursing supervisors will have until the end of the ninth week to complete the post-training and feedback surveys.	team as I work within the continuum of care at Bell Trace. A2- My capstone advisor discussed how she handles speaking to staff about constructive feedback and how to address those difficult conversations. B- I feel like I have gained a lot of knowledge and experience administering the MOCA. I used the MOCA to evaluate another patient with cognition concerns. C1- Training modules are still being implemented with the staff. C2- Due to the irregular staff schedules, it was difficult to find time to meet with the staff one-on-one. However, I was able to make myself present for the staff to check in with and determine how their transfers have been going. D1- I touched base with the assistant nursing director to discuss the end of the training program and to give her the completed certificates for the staff members that participated in the training. D2- I was able to have all the program participants complete and turn the post-survey in during week eight.	

9	Implementation	A- The student will gain administration skills during the capstone project by sitting in on Clinical Meetings and learning how to manage rehabilitation staff. B- By the fourth week of the capstone experience, the CNA training modules will begin to be taught to the program participants as well as administration of the pre-knowledge and technical skills survey. C- By the eighth week of the capstone experience, the CNA training will be completed and the post-knowledge and technical skills survey as well as the therapist satisfaction survey will be given to the program participants at Bell Trace.	A1- The student will attend at least 5 Clinical Meetings throughout the capstone experience. A2- The student will learn how to supervise therapists on the rehabilitation staff by shadowing the lead therapist who manages the unit at least once every other week. B -The DCE student will meet with each CNA at least one time per module to answer questions and observe technical skills C- The student will meet with the assistant nursing director at least once to discuss her recommendations and overall thoughts about the training protocol.	A1- I attended morning meetings this week and discussed patient concerns as well as events occurring on campus. A2- My capstone advisor finally found the time to review evaluations with the staff. My advisor did not name the employees, but we discussed positive and negative traits to have in employees. B- I set time aside this week to meet with any program participants last minute for any follow-up to the training program. C- I met with the assisted nursing director to discuss project sustainability and the best way to capture newly hired staff in the future. We determined a small presentation during orientation would be best. This will be completed by the therapy supervisor.	Mar. 10th
10	Discontinuation	A- The student will gain administration skills during the capstone project by sitting in on Clinical Meetings and learning how to manage rehabilitation staff.	A1- The student will attend at least 5 Clinical Meetings throughout the capstone experience. A2- The student will learn how to supervise therapists on the	A1- I attended the Bridge Meeting which is a campus partner meeting that occurs once a month. Individuals from Little Bell and Big Bell attend the meeting to discuss joint community partner events, patients, and facility concerns as a whole.	Mar. 17th

		B- The student will gain experience and knowledge in understanding how to treat patients with dementia by working in the clinic for at least two weeks. C- The student will plan for the dissemination process.	rehabilitation staff by shadowing the lead therapist who manages the unit at least once every other week. B- The student will learn basic information about dementia screening and assessment tools. C- The student will plan for the dissemination process.	A2- My capstone advisor was very open about the process for her yearly review. We discussed the review process and what implications there could be following different types of feedback. B- I have a patient with Parkinson's Disease whom I have been working with for several weeks. I am beginning to address cognitive decline due to Parkinson's which is very interesting to experience. C- I have had several discussions with my capstone advisor and other supervisors to determine the best way to create a sustainable project.	
11	Discontinuation	A- The student will gain administration skills during the capstone project by sitting in on Clinical Meetings and learning how to manage rehabilitation staff. B- The student will gain experience and knowledge in understanding how to treat patients with dementia by working in the clinic for at least two weeks. C- The student will plan for the dissemination process.	A- The student will attend at least 5 Clinical Meetings throughout the capstone experience. B- The student will learn basic information about dementia screening and assessment tools. C- The student will create a presentation to disseminate the project to the site.	A- I attended morning meetings throughout the week as well as the Clinical Meeting for the week to discuss patient needs and concerns. B- I continued to work with individuals struggling with cognitive decline. I have been working closely with one patient and her family in particular. I have spent a lot of time on caregiver/ family education to ensure the family understands how they can support the patient through the strategies learned in her sessions. C- I reached out to the administrators in Little Bell and Big Bell to identify a time to disseminate my project. I was able to get this meeting scheduled with both buildings.	Mar. 24th

12	Discontinuation	A- The student will gain administration skills during the capstone project by sitting in on Clinical Meetings and learning how to manage rehabilitation staff. B- The student will gain experience and knowledge in understanding how to treat patients with dementia by working in the clinic for at least two weeks. C- The student will plan for the dissemination process.	A1- The student will attend at least 5 Clinical Meetings throughout the capstone experience. A2- The student will learn how to supervise therapists on the rehabilitation staff by shadowing the lead therapist who manages the unit at least once every other week. B- The student will downgrade and upgrade intervention plans based on the Brief Cognitive Rating Scale. C- The student will create a presentation to disseminate the project to the site.	A1- I did not attend Clinical Meeting this week due to treating a patient at that time; however, I did go to a few morning meetings this week. I was able to remind individuals my dissemination presentations will occur in week thirteen. A2- I recorded an "About Me" video for the marketing department to discuss what occupational therapy is and how my project will benefit the site. This was a great advocacy opportunity and I was able to put the leadership skills I had gained from the capstone experience so far to use. B- After attempting to use various compensatory strategies with one of my patients, I determined I needed to adjust my approach to best serve my patient. I used the BCRS to modify my approach. C- I created a 20-25 minute presentation to correlate with my training handouts for the therapy supervisor to use for new staff hires orientation to continue using the transfer training program information to educate future staff.	Mar. 31st
13	Dissemination	A- The student will gain administration skills during the capstone project by sitting in on Clinical Meetings and learning how to manage rehabilitation staff. B- The student will gain experience and knowledge in	A- The student will attend at least 5 Clinical Meetings throughout the capstone experience. B- The student will downgrade and upgrade intervention plans based on the Brief Cognitive Rating Scale.	A- Clinical Meeting was cancelled, but I attended morning meeting to discuss patient concerns and how those concerns should be addressed. B- My Parkinson's patient has declined due to other health concerns and I have had to use several different cognitive strategies to make adjustments to increase the patient's safety awareness and sequencing skills.	Apr. 7th

		understanding how to treat patients with dementia by working in the clinic for at least two weeks. C- The student will disseminate to the site.	C- The student will present the project outcomes to the site.	C- I disseminate the project outcomes to both sites this week. The administrators from both buildings were very happy with the outcomes of the program and are interested in continuing the program following the completion of my capstone project.	
14	Dissemination	A- The student will gain administration skills during the capstone project by sitting in on Clinical Meetings and learning how to manage rehabilitation staff. B- The student will finish the last steps to fully transition the project to the site.	A- The student will attend at least 5 Clinical Meetings throughout the capstone experience. B- The student will complete any last-minute steps to terminate the project.	A- I attended my last Clinical Meeting this week. I was able to share a few notes about patients on the outpatient schedule. I attended morning meeting several times this week and worked on addressing patient care. B- I finished several important components of my capstone project and informed each of my patients that I will no longer be treating them. I compiled home exercise programs and other information for each patient and gave it to my capstone advisor to ensure a smooth transition of care.	Apr. 14th