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Abstract

Student clinics (SC) provide experiential learning opportunities in occupational therapy (OT) education that develop clinical reasoning, while providing much needed rehabilitation to under and un-insured patients in the community. The Student Experiential Learning Clinic for Hand Therapy (SELC-HT) is a SC that used a logic model for planning, implementing, and evaluating the SELC-HT. The purpose of this study is to report on outcome data on students and patients, as outlined in the evaluation phase of the logic model.

The 13 OT master/doctorate students, who delivered care in the SELC-HT, demonstrated growth in self-reported hand therapy knowledge *(p*=0.002) measured with the Hand Therapy Certification Commission Self-Assessment Tool. Nine of the 12 students responding to alumni survey were employed in hand therapy positions shortly after graduation. Five students authored six manuscripts published in peer-reviewed journals or practice journals about their work in the SELC-HT.

Of the 57 patients with baseline data, fractures were the most common diagnosis, and most patients were Black and males. One-third of injuries were due to violence, primarily gunshot wounds. At discharge (n=25) mean disability, measured with the Disability Arm Shoulder Hand, decreased 14.8 points (p=.001), which exceeds minimal clinical difference of 10.83. Statistically significant improvements in work disability (n=18) and work ability (n=21) also occurred. Most importantly, five patients who were not able to work at baseline had returned to work at discharge. These positive student and patient outcomes are due in part to the systematic planning and implementation of procedures defined in the SELC-HT logic model.

Keywords

Student Clinic, Logic Model

Cover Page Footnote

We would like to thank Washington University School of Medicine for providing the clinical space for our clinic. Finally, thank you to our clinic students and patients for their participation in our clinic.

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ABSTRACT

Student clinics (SC) provide experiential learning opportunities in occupational therapy (OT) education that develop clinical reasoning, while providing much needed rehabilitation to under and un-insured patients in the community. The Student Experiential Learning Clinic for Hand Therapy (SELC-HT) is a SC that used a logic model for planning, implementing, and evaluating the SELC-HT. The purpose of this study is to report on outcome data on students and patients, as outlined in the evaluation phase of the logic model.

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Of the 57 patients with baseline data, fractures were the most common diagnosis, and most patients were Black and males. One-third of injuries were due to violence, primarily gunshot wounds. At discharge (n=25) mean disability, measured with the Disability Arm Shoulder Hand, decreased 14.8 points (p=.001), which exceeds minimal clinical difference of 10.83. Statistically significant improvements in work disability (n=18) and work ability (n=21) also occurred. Most importantly, five patients who were not able to work at baseline had returned to work at discharge. These positive student and patient outcomes are due in part to the systematic planning and implementation of procedures defined in the SELC-HT logic model.

Evaluation of a Student Experiential Learning Clinic for Hand Therapy Using a Logic Model

Experiential learning opportunities in occupational therapy (OT) education provide hands-on learning opportunities to foster development of clinical reasoning skills (Coker, 2010; Knecht-Sabres, 2013; Tsubira et al., 2022). One form of experiential learning is a student clinic (SC). Students-in-training provide most healthcare services in SCs (Doherty et al., 2018; Hess et al., 2018). SCs typically offer services for free or at a greatly reduced rate, allowing underinsured individuals access to care they might not otherwise receive (Doherty et al., 2020; Hess et al., 2018; Trumbo et al., 2018). SCs demonstrate positive outcomes for students, including increased competence, leadership skills, commitment to the community (Black et al., 2013), cultural competence (Kruger et al., 2015), and self-advocacy (Lie et al., 2016). OT students feel the hands-on experiences in SCs enhance their didactic learning by boosting their confidence (Doucet & Seale, 2012; Goldbach & Stella, 2017). Students also note they develop professionalism and improved ability to adapt to new situations (Erickson, 2018), while also giving them an opportunity to work with underserved and diverse populations (O. Rogers et al., 2017). Empirical data show SCs improve OT students' ability to reflect and reason within a clinical setting (Coker, 2010).

In addition to providing an experiential learning environment for students, SCs provide a needed resource to the surrounding community. Of the patients seen in US emergency departments in 2010, 19% were uninsured or underinsured (Wenzinger et al., 2019). SCs can help fill the gap of the continuum of care following the emergency department (Westcott et al. 2021). SCs generate positive medical outcomes for patients and reduce the probability of readmittance to the hospital and overall hospital expenditures (Barry et al., 2019; Freburger et al., 2018; Trumbo et al., 2018; A.T. Rogers et al., 2017; Sanders et al., 2017; Hua et al., 2015). Doherty and colleagues (2020) demonstrated that patients in their OT SC demonstrated improvements in upper extremity function, physical health, and activity participation. Another OT SC found that patients improved their occupational performance and satisfaction (Zylstra & Doyle, 2020).

Considering these documented benefits to both students and patients in the surrounding community, an OT program affiliated with a research-intensive university in the Midwest opened several specialty SCs to provide OT services. One of the clinics, the Student Experiential Learning Clinic for Hand Therapy (SELC-HT), provided therapy to under- and uninsured individuals with hand or upper extremity (UE) conditions. Patients received medical and surgical intervention from the large team of hand and UE surgeons at the institution and were referred to the SELC-HT due to limitations to outpatient hand therapy insurance coverage.

Creation of the SELC-HT Logic Model

A logic model is a planning tool that clinicians can use to design a program, business, or clinic when creators have identified a need in their community (Kellogg 2004). This logic model can be thought of as the inputs and activities that lead to the intended results of the outputs, outcomes, and finally the impacts (McAndrew & Kaskutas, 2020a)**.** A logic model allows for effective presentation of an idea to stakeholders as it shows the logical flow to impacts (Cullen et al., 2016; Medeiros et al., 2005; Kellogg, 2004; McLaughlin & Jordan, 1999). McAndrew and Kaskutas (2020a) detail the development, review, and revision process of a logic model created specifically for student-run free clinics (SRFC), called the SRFC Logic Model. They created the SELC-HT logic model from the SRFC logic model, to reflect the specifics of this SC. The SELC-HT logic model evaluates the effectiveness of the SELC-HT through three impacts:

1. Prepare OT students for future clinical practice

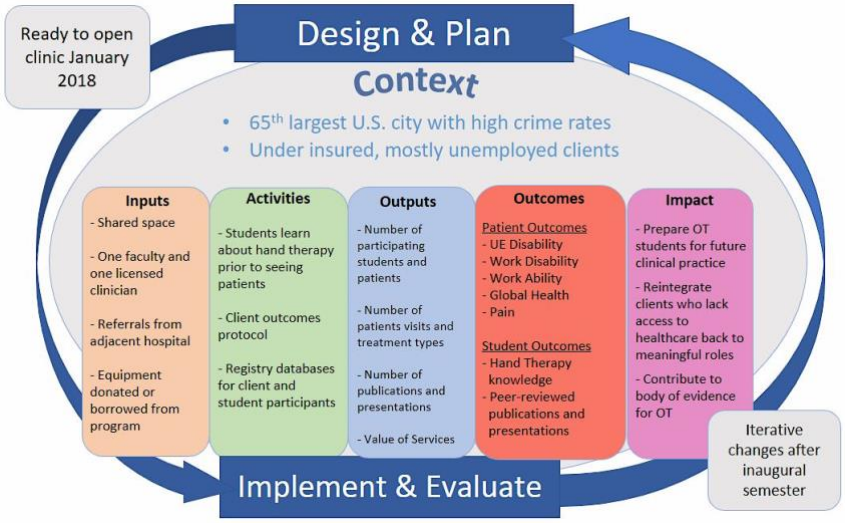
2. Reintegrate under- and uninsured patients with hand/UE conditions back to meaningful life roles

3. Contribute to the body of evidence for OT and necessity of the profession's services.

Further explanation of each individual component of the SELC-HT logic model is outlined in Figure 1.

Figure 1

The SELC-HT Logic Model



Reproduced and modified with permission of original manuscript in *Journal of Occupational Therapy Education*, (McAndrew & Kaskutas, 2020b).

McAndrew and Kaskutas (2020b) performed an evaluation of the SELC-HT following the first semester, concluding that they were making progress toward the intended long-term impacts. Through the systematic processes put into place by following the SELC-HT logic model, they found that students participating in the SELC-HT demonstrated improved hand therapy knowledge, clinical competencies, and professional behaviors. Patient outcomes demonstrated decreased disability and work disability, and increased work ability.

Lastly, they describe iterative changes implemented following the first semester, a necessary process as outlined in the SELC-HT logic model (McAndrew & Kaskutas, 2020b). However, a full formal analysis and dissemination of all outcome data has not occurred since this first semester. The purpose of this study is to perform a follow-up analysis of progress made toward the outputs and impacts defined by the SELC-HT logic model.

Methods

Approval was received from the University's Institutional Review Board to develop patient and student repositories and to access these databases for subsequent research to evaluate the outcomes and impact, as outlined in the logic model.

This study included data from the six masters and seven doctoral OT students who provided services at the SELC-HT, and the adult patients with hand and UE conditions referred to the SELC-HT by their hand surgeon. Inclusion criteria for students included being a full-time enrolled student in either the university's entry-level masters or entry-level doctorate program who participated in one or more semesters in the SELC-HT. Students applied to join the SELC-HT during their first year of the OT program and began to treat patients following, at minimum, three semesters of coursework. Inclusion criteria for patients included being under- or uninsured, having a current or recovering from a UE injury, and referral by a doctor from the clinic's partnering medical hospital. Exclusion criteria for patients included non-English speaking individuals. Written consent was provided by all student and patient participants who met inclusion criteria, and data were entered into database using REDCap (Harris et al., 2019; Harris et al., 2009) housed on a secure institutional server.

Student Measures

Hand Therapy Certification Commission Self-Assessment Tool (HTCC)

The HTCC is a self-assessment tool designed for occupational and physical therapists interested in hand therapy and/or therapists preparing for the Hand Therapy Certification Examination (Hand Therapy Certification Commission, n.d.). Although this tool is non-standardized and not designed to be used in research, it is the most comprehensive self-reported measure related to hand therapy knowledge. The HTCC is divided into four areas: Anatomy and Physiology of the UE (52 items), UE Diagnoses and Conditions (42 items), Intervention Techniques and Tools (85 items), and Knowledge Areas of the UE (27 items). Respondents rate their knowledge level as either limited, basic, advanced, or expert. Students completed the HTCC prior to starting in the SELC-HT and at the end of their final semester. To track progress objectively, the researchers quantified data by assigned a score of one for "limited" to four for "expert" knowledge for each item.

Alumni Survey

Twenty alumni received a Google Form survey regarding a hand therapy job placement six to 18 months post-graduation.

Patient Measures

Demographics

Patient demographics were collected at baseline through self-report and chart review, including age, race, sex, body part affected, primary diagnosis, if injury occurred due to violence, and whether surgical intervention occurred. We also tallied attendance data. For the purposes of this study, no distinction was used between uninsured and underinsured (i.e., Medicaid).

The Disability of the Arm, Shoulder, and Hand (DASH)

The DASH is a 30-item, self-reported questionnaire designed to measure the physical function and symptoms of patients with musculoskeletal conditions of the upper limb. It is used to both describe the disability the individual is experiencing and to monitor changes in symptoms and function over time (The Institute for Work and Health, 2020). Twenty-one functional activities are rated on a five-point Likert scale from 1 (*no difficulty*) to 5 (*unable*), while five symptom-related questions are rated from 1 (*none*) to 5 (*extreme*). Score is calculated based on manual (Institute for Work and Health, 2020) with resultant score ranging from 0-100 , with higher scores indicating greater disability. This questionnaire has been reported to have good validity (Kitis et al., 2009; Changulani et al., 2008), very good test-retest reliability (Kitis et al., 2009; Changulani et al., 2008), good patient responsiveness (Changulani et al., 2008), and a very high internal consistency (Kitis, et al., 2009). A 10.83-point change in mean score indicates minimal clinically important difference (MCID) (Franchignoni et al., 2014).

DASH Work Module (DASH-W)

The Dash Work Module is a four-item scale that measures the impact of UE musculoskeletal conditions on one's physical work ability and symptoms (Dale et al., 2016). Responses are rated on a five-point Likert scale, ranging from 1 (*no difficulty*) to 5 (*unable*). Score is calculated based on manual (Institute for Work and Health, 2020) with resultant score ranging from 0-100 , with higher scores indicating greater work disability. It is scored separately from the DASH and has demonstrated a strong level of reliability and validity (Tang et al., 2009). The DASH-W has been previously used to analyze both working (Dale et al., 2016; House et al., 2012; Tang et al., 2009) and non-working populations (Wong et al., 2007). The MCID of the DASH-W has not been established.

Work Ability Score (WAS)

The WAS measures ability to work using one item from the *Work Ability Scale*, a psychometrically strong assessment of work ability that is widely used (Illmarine, 2007). The individual rates their current work ability level on an 11-point scale, with zero representing completely unable to work and 10 work ability at its best. The one-item WAS has been validated and interpretation criteria has been developed: poor (0-5), moderate (6-7), good (8-9), or excellent (10) (El Fassi et al., 2013).

Numeric Pain Scale (NPS)

The NPS is an 11-point scale used to assess patients' current level of pain on a 0-10 scale, with 0 being "no pain" and 10 being "worst pain imaginable." The use of pain scales has been widely documented and can be administered in various formats (Pathak et al., 2018; Hollen et al., 2005). The NPS demonstrated good acceptability, reliability, and validity when administered amongst adult populations (Hollen et al., 2005; Williamson et al., 2005; Bijur et al., 2003; Jensen et al., 1986). A frequently cited study determined that a change of 1.39 +/- 1.05 (95% confidence interval, 1.27-1.51) is clinically significant (Kendrick & Strout, 2005).

Patient-Reported Outcomes Measurement Information System (PROMIS) – Global Health 10 (Global 10)

The PROMIS – Global 10 is a 10-item self-report questionnaire developed by the National Institute of Health that measures physical function, fatigue, pain, emotional distress, and social health. Two 4-item summary scores can be derived; Global Physical Health (GPH) score and Global Mental Health (GMH) score (Hays et al. 2017). Internal consistency of the GPH is 0.81 and GMH is 0.86 respectively (Hays et al. 2017, Hays et al., 2009). The PROMIS-Global 10 has a United States population mean of 50 with a standard deviation of 10. (Health Measures, n.d.). GPH correlates most strongly with pain impact (r = -0.75), while GMH correlated most strongly with depressive symptoms (r = -0.71) (Hays et al. 2009).

Work Status

Patients self-reported work status at initial visit and discharge. We classified patient work status as unemployed, employed but not working, working light duty, working full duty, or retired. For analysis, we combined responses in working light duty and working full duty into the category working to more expressively delineate individuals who were and were not working.

Data Preparation and Analysis

Student self-ratings on the four knowledge areas of the HTCC were summed, and all knowledge areas were combined to compute a total HTCC score. Sample means of each knowledge area and the four areas combined were calculated. Patients' scores on the DASH, DASH-W, WAS, and the PROMIS GPH and GMH were scored according to user manuals. Counts and central tendencies at baseline and

discharge were computed for all data. Wilcoxon Signed-Rank Tests were performed to determine significance of pre/post changes for both patient standardized outcomes and student HTCC results. The number of patients in each work status category at discharge was computed as percentage of patients with available outcome data. Attendance was computed by taking the total patient visits, cancellations, and no shows for the period of this study then averaging it by the total number of patients seen. Dissemination data was gathered by taking the total number of studies and presentations reported by students and totaling the number of citations, reads, downloads, and captures. All statistical analyses were performed using IBM SPSS statistics version 27 (IBM Corp., Armonk, N.Y., USA, 2016).

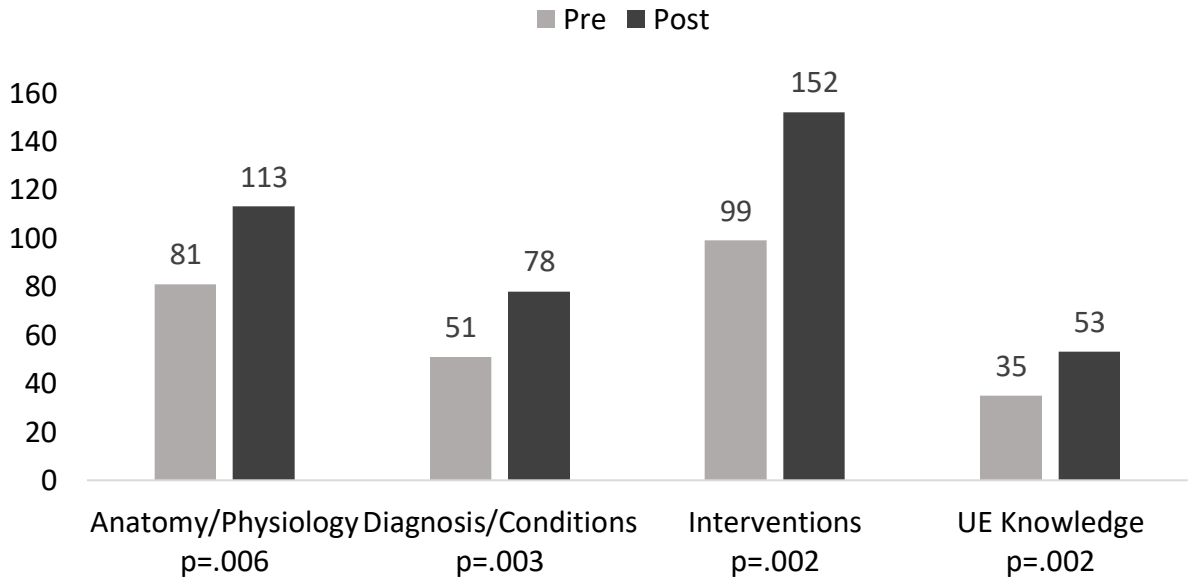
Results

Student Outcomes

Results from the HTCC self-assessment are shown in Figure 2. The Anatomy/Physiology knowledge area demonstrated a mean improvement of 32-points (p=0.006), Diagnosis/Conditions 27-points (p=0.003), Interventions 53-points (p=0.002), and Upper extremity 20-points (p=0.002). Total score of all four knowledge areas demonstrated a mean improvement of 132-points (p=0.002) from 266-points at the beginning of the students' first semester in the SELC-HT to 398-points at the end of their last semester. Since the number of items in each knowledge area varied, the maximum points also varied.

Figure 2

Mean Changes in Students' Knowledge on HTCC (n=13)



Note: Higher scores denote better knowledge
The highest possible score varied for each area and cut-point displayed is not the maximum

Twelve participants responded to the alumni survey. All respondents held full-time positions and nine (75%) were employed in hand therapy positions. Regarding the impact of contributing to the body of evidence, six students authored five manuscripts published in peer-reviewed journals and two manuscripts published in practice journals. These papers have been cited 14 times in peer-reviewed journals, and usage of these publications exceeds 1,400, including abstract views, downloads, and captures. Seven students in the SELC-HT first authored a total of 18 presentations at national

conferences including American Occupational Therapy Association or American Society of Hand Therapists. Additionally, several alumni continue to publish in peer-reviewed journals.

Patient Outcomes

Our entire patient sample included 57 individuals. Twenty-five of the 57 patients had both initial evaluation and discharge data available and were included in outcome demographic analysis and DASH analysis; Table 2 and Table 3 describe sample counts for each measure. The majority of the patients were Black and were male. The most common injury sustained were fractures, and several patients had multiple diagnoses. Nearly one-third of the injuries were violence related, primarily gunshot wounds. Of the 25 patients with discharge data, 19 (76%) had surgical intervention. See Table 1 for details.

Table 1

Demographics of Entire Patient Sample and Outcome Analysis Sample

	Entire Sample n=57	Outcome Sample n=25		Entire Sample n=57	Outcome Sample n=25
Age Range			**Race**		
18-29 years	10 (18%)	5 (20%)	White	16 (28%)	9 (36%)
30-39 years	12 (21%)	3 (12%)	African American	40 (70%)	15 (60%)
40-49 years	13 (23%)	5 (20%)	Middle Eastern	1 (2%)	1 (4%)
50-59 years	15 (26%)	7 (28%)	**Sex**		
60-69 years	7 (12%)	5 (20%)	Male	34 (60%)	13 (52%)
Diagnoses[a]			Female	23 (40%)	12 (48%)
Fracture	39	11	**Primary Body Part**[c]		
Soft Tissue	17	6	Proximal/Shoulder	3 (6%)	2 (8%)
Peripheral Nerve	10	2	Arm	6 (11%)	3 (12%)
Tendon Laceration	10	3	Elbow	2 (4%)	2 (8%)
Brachial Plexus	5	2	Forearm	5 (9%)	2 (8%)
Arthritis	4	0	Wrist	12 (21%)	5 (20%)
Tendinitis	2	1	Hand	12 (21%)	7 (28%)
Violence[b] **Related**			Digit	14 (25%)	3 (12%)
Yes	17 (30%)	7 (28%)	Thumb	3 (5%)	1 (4%)

[a] Several patients had more than one diagnosis listed; therefore, percentages not computed.
[b]Violence was defined as by the World Health Organization definition. Most patient violence-related injuries were due to gunshot wounds.
[c]Several patients had multiple body parts effected; therefore, percentages do not add to 100%

The entire sample of 57 patients had 360 scheduled visits. Two hundred-sixty (72%) of these visits were attended with an average of five visits per patient. Common reasons given at the time of cancellation included lack of transportation or funds to travel to therapy.

Table 2 describes the results of all standardized assessments at baseline and discharge. The outcome sample's mean DASH mean scores were 46.47 at baseline and 31.67 at discharge. This 14.8-point change was statistically significance at p=0.001; more importantly it exceeds the minimal clinical difference of 10.83 established by Franchignoni and colleagues (2014). Work DASH mean scores improved 23.36 points from baseline to discharge (p=0.002). WAS mean scores improved 1.8 points from 3.62 at baseline to 5.43 at discharge (p=0.014); the poor range is from 0-5 per El Fassi and colleagues (2013). All PROMIS scores were within 1 SD of population norm except for GPH at discharge, which was greater than one SD below the mean. See Table 2 for scores on remaining assessment measures.

Table 2
Patients' Mean Scores, Standard Deviation (S.D.) and Statistical Significance (Wilcoxon Signed-Rank Test) on Standardized Assessment Measures

	N	Baseline Mean Score (S.D.)	Discharge Mean Score (S.D.)	*p*-value (2-tailed)
Disability Arm Shoulder Hand (DASH)[a]	25	46.47 (19.68)	31.67 (20.37)	0.001
Work DASH[a]	18	67.36 (35.65)	44.44 (40.16)	0.002
Work Ability Score[b]	21	3.62 (2.62)	5.43 (3.64)	0.014
Pain Rating[c]	23	4.43 (3.06)	3.13 (2.60)	0.075
PROMIS Global Health Physical Scale[d]	24	40.35 (5.43)	38.94 (4.17)	0.163
PROMIS Global Health Mental Scale[e]	24	41.77 (7.19)	41.72 (6.62)	0.525

[a] Reported on 0-100 scale, 0 = no disability, 100 = maximal disability. MCID: 10.83
[b] Self-rated rating from 0-10 with 0 = "completely unable to work" and 10 = "work ability at its best".
[c] Self-report on a 0-11 scale, 0 = no pain, 10 = worst pain imaginable
[d] Four items on the PROMIS – Global 10, three items are rated on a five-category response scale and one item is rated on a 0-10 response scale
[e] Four items rated on a five-category response scale within the PROMIS – Global 10

Twenty-three patients had both baseline and discharge work status data. At baseline 13 of the 23 patients (57%) were unemployed; at discharge one of these patients had secured a job. Four of the

patients were working in some capacity at baseline and eight were working at discharge. Table 3 describes baseline and discharge work status data.

Table 3

Patient Work Status at Baseline and Discharge

	Baseline (n=23)	Discharge (n=23)
Unemployed	13 (57%)	12 (52%)
Employed, Not Currently Working	4 (17%)	1 (4%)
Working	4 (17%)	8 (35%)
Retired	2 (9%)	2 (9%)

Discussion

These results demonstrate that the SELC-HT achieved all three of the impacts defined in the logic model:

1. Prepare OT students for future clinical practice

2. Reintegrate under- and uninsured patients with hand/UE conditions back to meaningful life roles

3. Contribute to the body of evidence for OT and necessity of the profession's services.

First, the SELC-HT defined the outcomes and outputs during the clinic planning process to routinely measure and track progress. Following this blueprint closely supported gathering the patient and student data that many SCs lack when evaluating their clinic (Enich et al., 2021; Flores et al., 2021; Hess et al., 2018; Patel et al., 2022). Additionally, the researchers continuously modified these processes to improve the SELC-HT based upon experiences due to the cyclical nature of the logic model.

Prepare OT students for future clinical practice

The training and experience students received in the SELC-HT helped prepare them for their future clinical practice. As other studies show, healthcare students highly value engaging with patients in SCs prior to formal clinical rotations (Doucet & Seal, 2012; Hallin et al., 2009). Students can also integrate their didactic work with direct-patient care experiences, resulting in an overall increase in student clinical competence and confidence in professional behaviors (Drummond et al., 2021; Phillips et al., 2017). According to Phillips and colleagues (2017), when a didactic curriculum is paired with clinical application, students completed interventions more efficiently and felt an improved ability to provide patient care. Our results coincide with these principles.

Hand therapy is an area of specialty practice that is challenging for new therapists without experience (Short et al., 2018); yet nine out of 12 of the graduates who responded to the survey were employed in hand therapy clinics soon after graduation. Although the HTCC Self-Assessment is a non-standardized assessment, it is widely used in the hand therapy field. Increases in students' hand therapy knowledge scores on all four areas of the HTCC provide statistical evidence of positive student outcomes, which may have helped the SELC-HT alumni secure these positions. Future employment as a student outcome was mentioned in few studies of SC. One article on medical students' participation in

their primary care SC found that despite students finding the experience valuable, only a small percentage of students felt that the experience influenced their decision to pursue primary care as a career (Weinreich et al., 2015). In contrast to this, many students who participated in the SELC-HT chose hand therapy as their initial practice area following graduation.

Reintegrate under- and uninsured patients with hand/UE conditions back to meaningful life roles

Our study demonstrates that OT services provided by students contributed to patients' ability to reintegrate into meaningful life roles, including returning to daily activities and work. Patients demonstrated a statistically significant decrease in disability at discharge. Perhaps more importantly, the mean DASH scores showed improvements that were clinically significant (Franchignoni et al., 2014), meaning patients would notice a true change in function in their daily life.

Our patient sample also experienced decreased work disability and increased work ability that were statistically significant. Importantly, several of our employed patients and one who was unemployed at baseline, returned to work at discharge. This outcome is particularly notable as many of our patients' jobs were hand and UE intensive, such as construction, tattooing, warehouse work, and carpentry. Increasing employment in working-age people is a goal of Healthy People 2030 as people who work are more likely to have positive health outcomes (Office of Disease Prevention and Health Promotion, (ODPHP), n.d.).

Other studies exploring the role of OT SCs also reveal a positive influence on patient health, such as functional movement and goal attainment (Doherty et al., 2020) and Canadian Occupational Performance Measure scores (Zylstra and Doyle, 2020). However, there are no outcomes reported regarding work ability, disability, or work status in other SCs in the literature. Given the evidence linking participation in work to positive health outcomes, this is an opportunity for SCs to explore and using a logic model could aid in the procurement of these data.

Contribute to body of evidence for OT

Evidence-based practice (EBP) leads to improved patient health outcomes. (Emparanza et al., 2015; Saunders et al., 2019, Thomas & Law, 2013). Within the context of our SC-- a research-intensive institution—the importance of generating and disseminating evidence was a salient impact in our logic model (McAndrew & Kaskutas, 2020b). In just a few years, research generated by the SELC-HT has reached thousands of readers or attendees at annual professional conferences. All student participants in the SELC-HT experienced research in action to measure clinical outcomes as part of activities required by the SELC-HT with several continuing on to produce peer-reviewed publications or presentations. Medical students who conducted research leading to a publication before graduation were more likely to be scientifically active after graduation (Waaijer et al., 2019), suggesting that successful early involvement in research can influence long-term scientific activity. Future research should look at long-term research activity by alums of the SELC-HT.

Limitations

The purpose of this study was to evaluate the SELC-HT using the logic model created uniquely for it. Thus, it is not an analysis of the entire OT program student outcomes nor is it a quasi-experimental study to compare patient outcomes. Instead, this manuscript uses the logic model as a framework for outcome analysis, necessary with successful program planning and evaluation. Therefore, direct causality between the SELC-HT and student and patient success cannot be determined. We acknowledge that reaching the impacts stated here could have been influenced by external factors such as students' experiences in their level II fieldworks or by patients' natural course of healing. Instead, the

intended takeaway is that participation in the clinic did provide a "value-added" element to students' education and under- and uninsured patients' healing process which was directly guided by the logic model.

Knowledge Translation Takeaway

Common challenges during fieldwork include planning and implementing interventions (Mason, 2020). Additionally, clinicians have stated that their lack of research skills act as a barrier to the implementation of evidence-based practice (Upton et al., 2014). As our results show, students who participated in our logic model-guided clinic self-reported an increase in knowledge and skills considered challenging by students, fieldwork educators, and clinicians which led to the reintegration of patients back to meaningful life roles. This was in part due to how our logic model, informed by prior research on SCs and best practices, was intentional in designating specific outcomes and impacts for all participants in the clinic. Use of a logic model supports translation to clinical practice by making outcomes and activities leading to outcomes relevant.

Conclusion

This research provides evidence that a student experiential learning clinic supports preparing OT students for future clinical practice, specifically related to working with patients with hand and UE injuries and conditions. The SELC-HT also assisted in the reintegration of under- and uninsured patients with hand/UE conditions back to meaningful life roles, with a decrease in disability. The SELC-HT contributed to the body of OT evidence through various means of dissemination. The SELC-HT logic made attaining these results possible as it was instrumental in planning, implementing, evaluating, and iteratively modifying the clinic semester by semester.

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