



Effectiveness of an Evidence-Based Orthotic Manual for Occupational Therapy Students

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DCE Site

High Five Hand Therapy and Rehabilitation (HFHTR) is a Los Angeles and Orange County-based rehabilitation clinic started by Danny Kang, OTR/L, CHT. Danny partnered with Andrew Dyjak MS, OTR/L, LMT and together opened a second location in Los Angeles. HFHTR clinics provide hand therapy services and specialize in instrument-assisted soft tissue mobilization (IASTM).

Needs Assessment

- The first area of need was for custom orthotic fabrication manual.
- Another area of need is to have an IASTM protocol for therapists to follow for different diagnoses.
- Creating more occupation-based interventions.
- Improving the home exercise programs (HEPs).

Literature Review

- Occupational therapy students believe that more time should be devoted to orthotic design and fabrication in school (Schofield and Schwartz, 2020).
- Orthotic fabrication is viewed as a valued part of OT education and an essential skill for occupational therapists and OT assistants (Schofield and Schwartz, 2020).
- The literature states that orthotics are some first options of conservative treatment for many hand injuries and are proven to be effective for some of the most common hand injuries.

Learning Objectives

1. By the end of 14 weeks, the student will create a custom orthosis manual for the members of High Five Hand Therapy to use as a resource to improve clinical practice skills.
2. By the end of 14 weeks the student will present the orthosis manual and provide pre and post tests to assess for students comprehension.
3. By the end of 14 weeks the student will add to the clinic's Google Drive storage with videos on how to fabricate the different custom orthoses.
4. By the end of 14 weeks, the student will have advanced his clinical practice skills in the hand therapy setting.

Project Description & Implementation

- To create resources to assist students in custom orthotic fabrication of common designs seen in the hand therapy setting.
- A custom orthotic manual going over all information needed to fabricate a custom orthoses.
- Video resources giving visuals on how to fabricate different orthotic designs. Including how to trace and mold design onto a patient.

Results

- 4 OT students were present for the orthotic manual presentation.
- 9 question pre-test and post-test was administered before and after the presentation
- Pre-test average score: 4.5/9
- Post-test average score: 8/9

Figure 1: Pre-test survey

I have a strong understanding of the custom orthotic fabrication process.

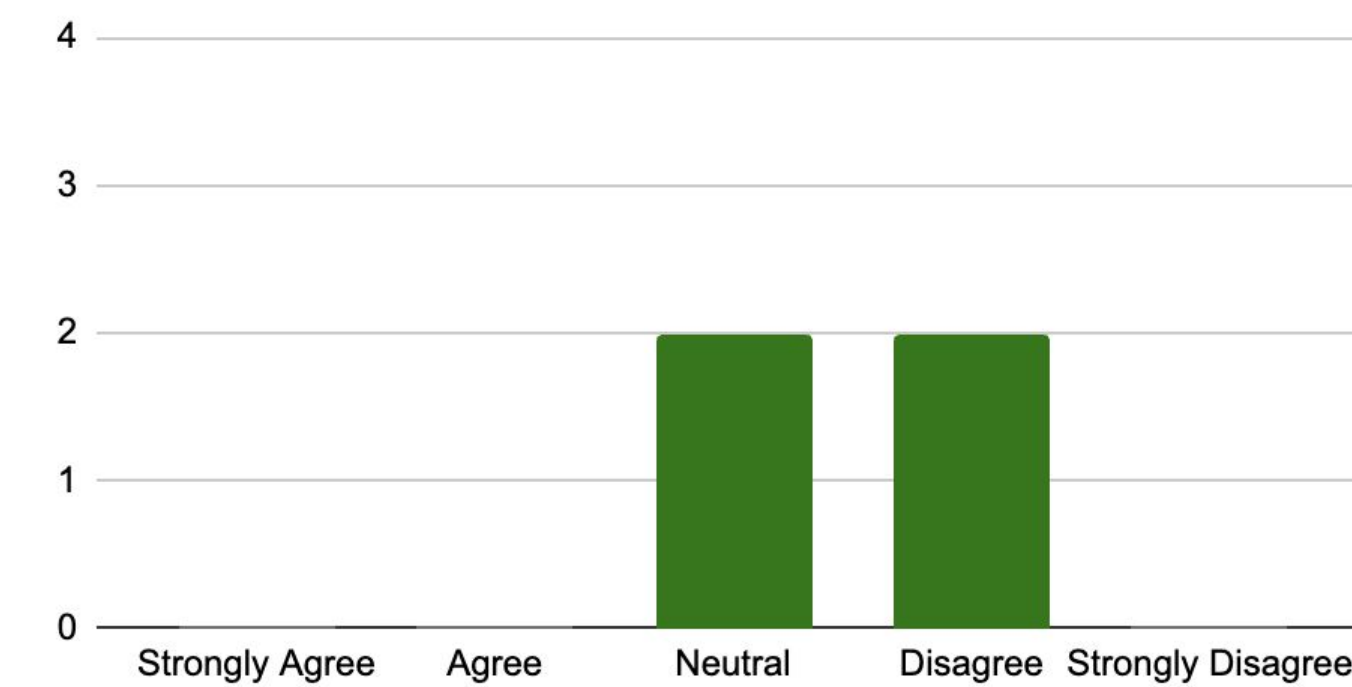
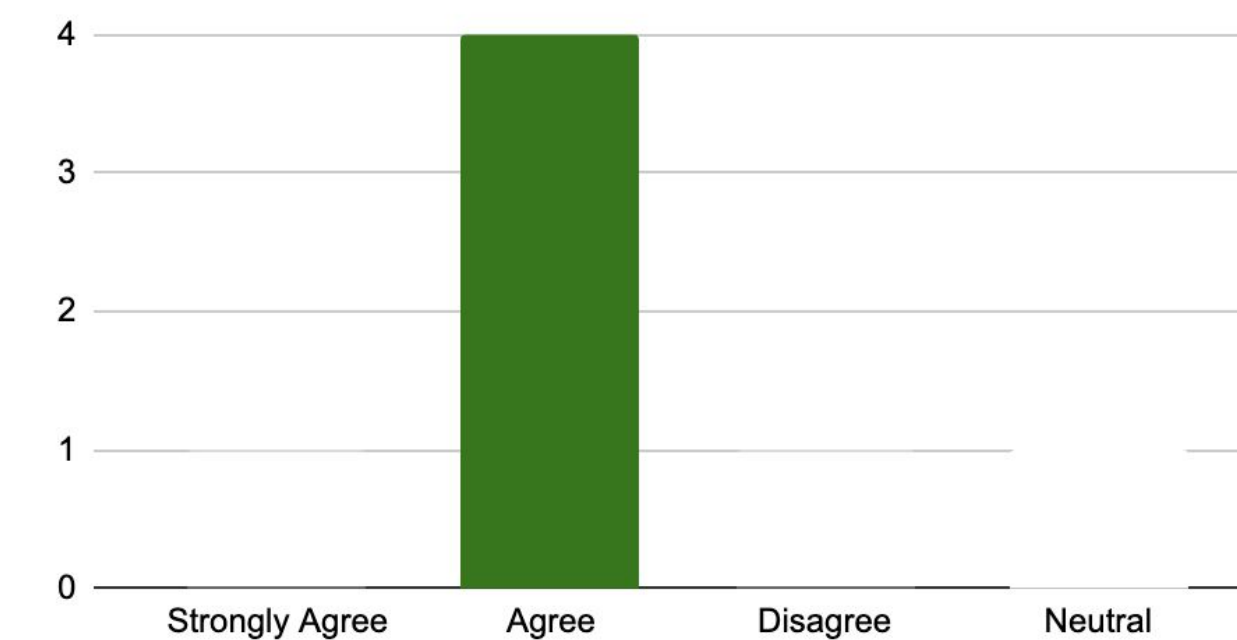


Figure 20: Post--test survey

I have a strong understanding of the custom orthotic fabrication process.



Discussion

- There was a significant difference between the pre-test and post test scores.
- These results correlate with the literature review that more time needs to be devoted to educating students on the custom orthotic fabrication process.
- Having more study resources in the curriculums and fieldworks can increase student knowledge in this skill.

Implication & Conclusion

- The sample size was a limitation in this study.
- Future studies should use a larger sample size to gain more data.
- Besides knowledge, clinical practice skills of fabricating different orthotic designs should be tested as well.
- These orthotic resources were a success in increasing the knowledge of fieldwork students in the orthotic fabrication process.

Scholarly Deliverables & References

- Includes a Google Doc of the orthotic manual that goes over the foundation of orthotic fabrication.
- Also includes links to the video resources of fabricating and molding the designs.

