

Improving Occupational Therapists' Self-Efficacy in Performing Mat Assessments

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Background

- People living in long-term care frequently have inadequate access to properly fitted wheelchairs.
- Poor seating and positioning can have negative effects on mobility, comfort, and skin integrity.
- Research has shown that providing residents with an individually assessed seating system can improve skin integrity, and overall quality of life, and allow greater and uninhibited participation in daily living activities (McVey et al., 2015).
- The selection and fitting for appropriate wheelchairs is an area that requires specific training and knowledge.

Literature Review

- Literature shows that professional development needs most frequently identified were related to designing/building or fitting devices, assessing users' needs, and providing advice regarding devices (Sarsak et al., 2023).
- Studies have shown that healthcare professionals primarily responsible for wheelchair service provisions such as occupational therapy practitioners (OTPs), physical therapy practitioners (PTPs), and prosthetics & orthotics (P&O) often lack the competencies required for comprehensive service delivery (Giesbrecht et al., 2022).
- Many descriptions or protocols in the literature include a mat assessment as a major part of collecting the information necessary to make the best wheelchair and accessory selections.
- Evidence has shown that to complete a thorough wheelchair evaluation a mat assessment must be included.
- Have found that therapists report various environmental obstacles that impede them from completing thorough wheelchair evaluations.

Significance

- Wheelchair provision is a multifaceted and complex process, which requires that the provider consider the interaction of the individual, environment, and activities of choice.
- Most therapists graduate from their occupational therapy program with the basic knowledge of how to complete a patient assessment for a wheelchair evaluation. However, not all therapists are taught how to complete a thorough mat assessment when assessing or evaluating a patient for a wheelchair.
- The mat assessment must be completed so that the wheelchair, equipment, and accessories prescribed are the best fit for the patient.
- An increase in therapists' self-efficacy in performing mat assessments, increases the likelihood that they will use them in their wheelchair evaluations and therefore should improve their ability to select wheelchairs and wheelchair accessories/equipment for residents at the skilled nursing facility.
- The goal is that with residents receiving wheelchairs and accessories/equipment that are best suited for their needs we should see a decreased risk for falls from wheelchairs, decreased risk for pressure ulcers or wounds, improved posture and positioning, and improved overall quality of life.

Evidence-based Practice Question

Will the Completion of an Online Training Increase Therapists' Self-Efficacy in Performing a Mat Assessment as Part of Their Wheelchair Evaluation?

Method

- Setting and Participants:** This project focused on the practice setting of skilled nursing facilities (SNFs). The intended audience was occupational therapists directly involved with wheelchair evaluations and assessments for facility residents.
- Methods:** A pre-test/post-test design was used.
- Data Collection:** All responses to surveys and tests were submitted online. Participants were sent a link to their email where they were able to access the pre-survey and pre-test and then submitted them. The application gathered and stored the responses for analysis. Pre-surveys and pre-tests were completed and then the online training was sent via email to all participants. Upon completion of the training, post-surveys and post-tests were sent out to participants. Once this data was submitted to the application, all data were analyzed.
- Data Analysis:** Pre and post-test scores were compared to determine if there was an increase in scores. Pre- and post-survey responses were compared for reported improvements in feelings of confidence and self-efficacy. Lastly, responses to open-ended questions were analyzed for common themes regarding participants' feelings before and after the training.

Results

Pre-survey and Post-survey Responses

- In the first pre-survey question, 60% of participants responded that their current knowledge of mat assessments as average, and 40% rated their current knowledge as below average (Figure 1A). In the post-survey, 60% of participants rated their knowledge as above average and 40% as average (Figure 1B).
- The second pre-survey question asked participants to rank their current self-efficacy in using a mat assessment as part of their wheelchair evaluations. A total of 80% of participants responded that their current self-efficacy in completing a mat assessment was below average (Figure 2A). The remaining 20% responded, average. In the post-survey, 80% rated their self-efficacy as average and the other 20 % rated their self-efficacy post-training as above average (Figure 2B).
- The third question of the pre-survey asked participants to report how often they currently use a mat assessment as part of their wheelchair evaluations. All participants (100%) reported that they currently, never, use a mat assessment as part of their wheelchair evaluations (Figure 3A). The third question on the post-survey was if, after this training, how often they feel they would be comfortable using a mat assessment as part of their wheelchair evaluations. A total of 80% of participants responded they would be using the mat assessment during their wheelchair evaluations and 20% responded that they would use them at least half the time with less complicated cases and feel they need a little bit more training to use them all the time. (Figure 3B).

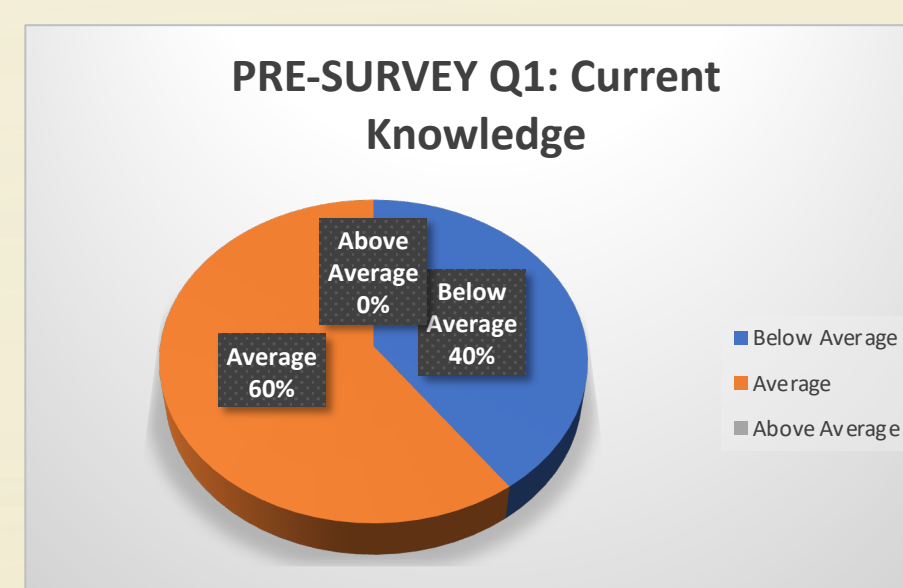


Figure 1A

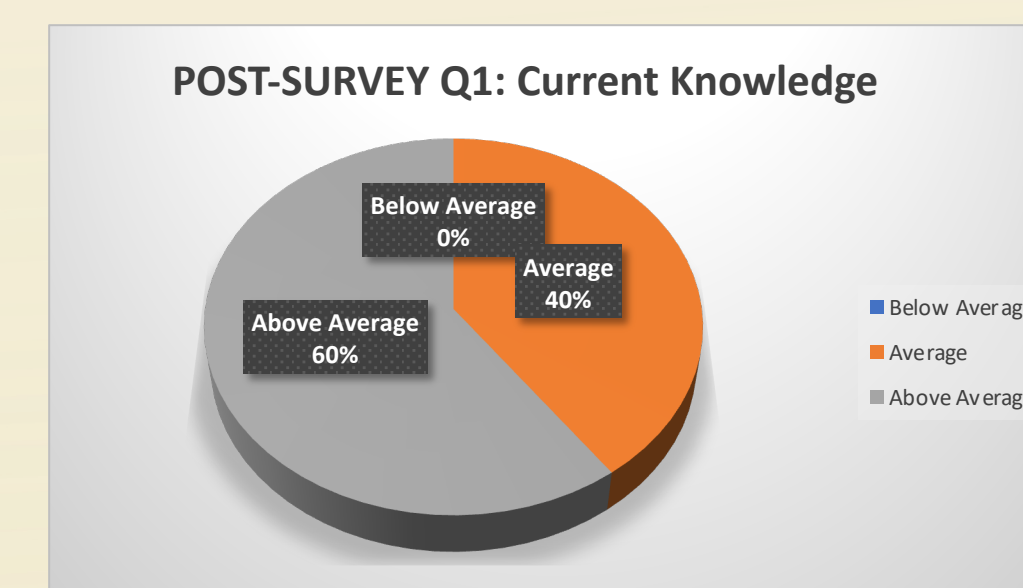


Figure 1B

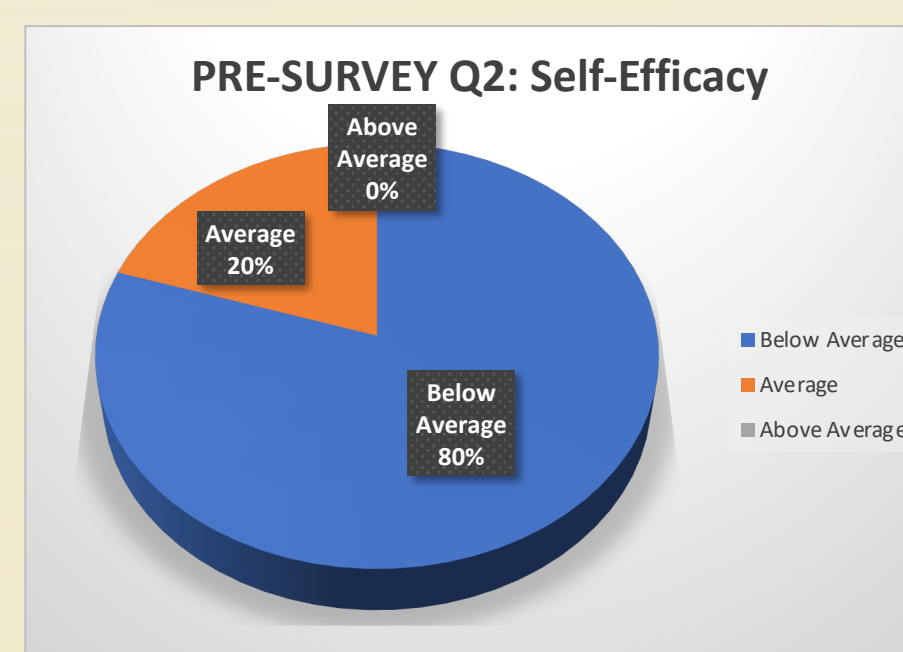


Figure 2A

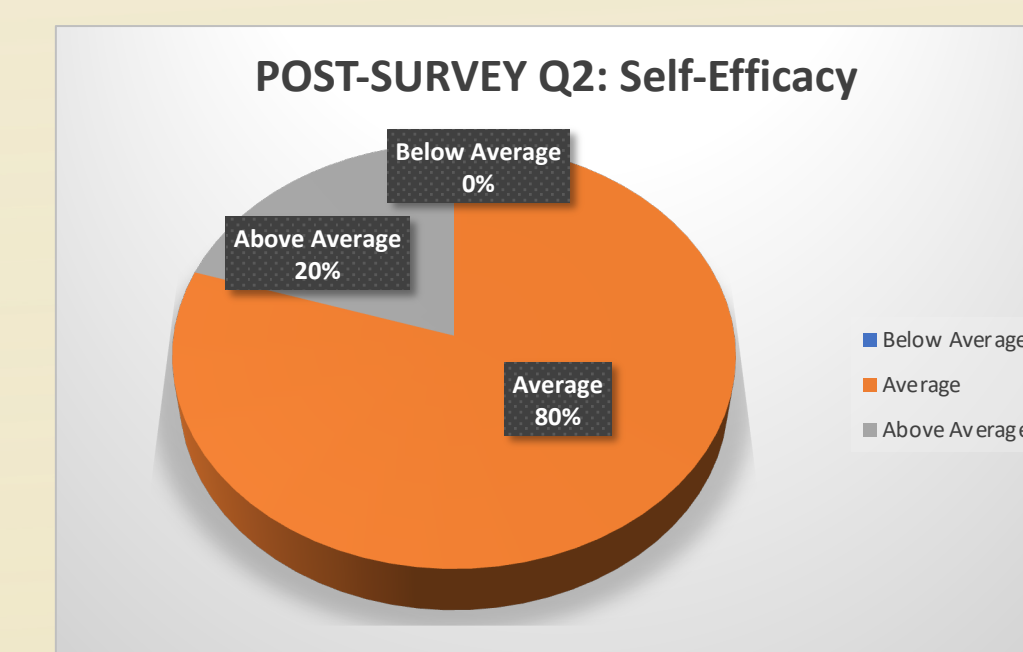


Figure 2B

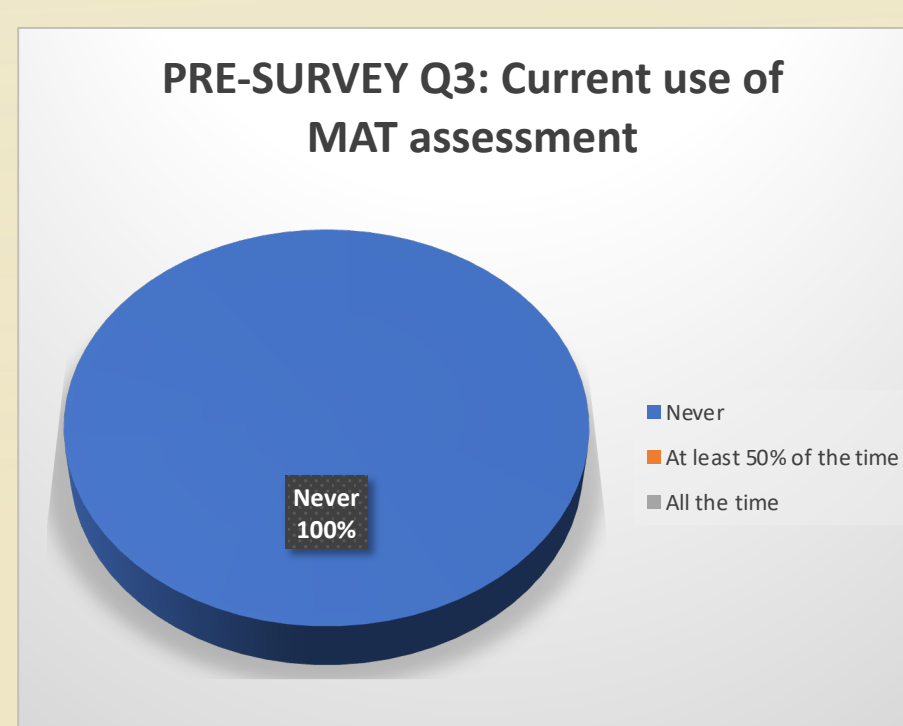


Figure 3A

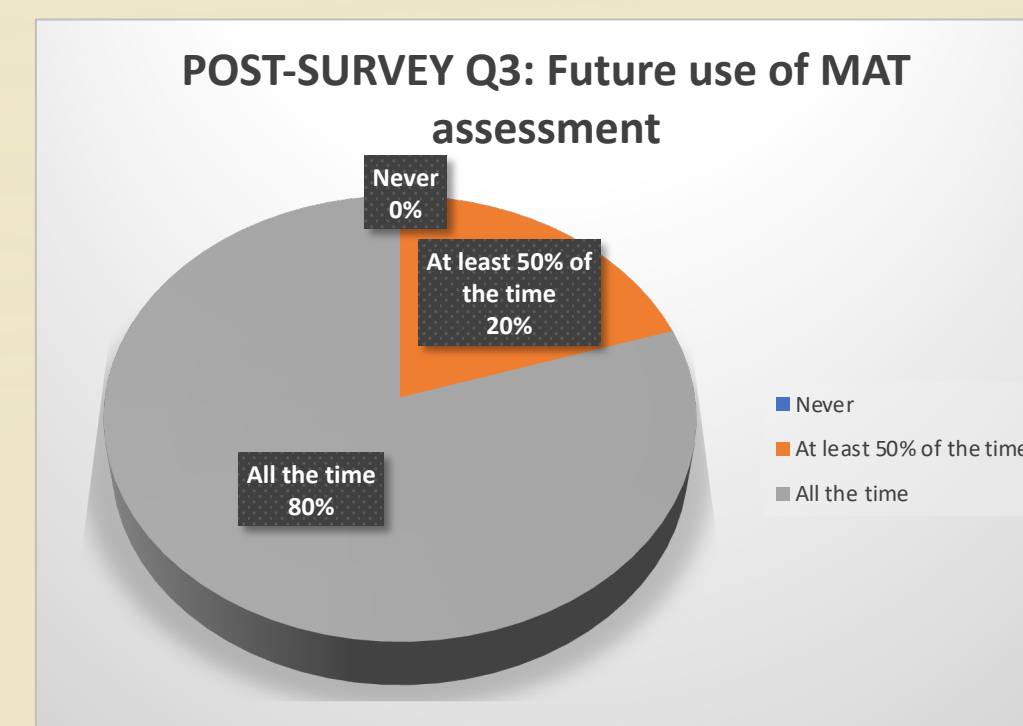
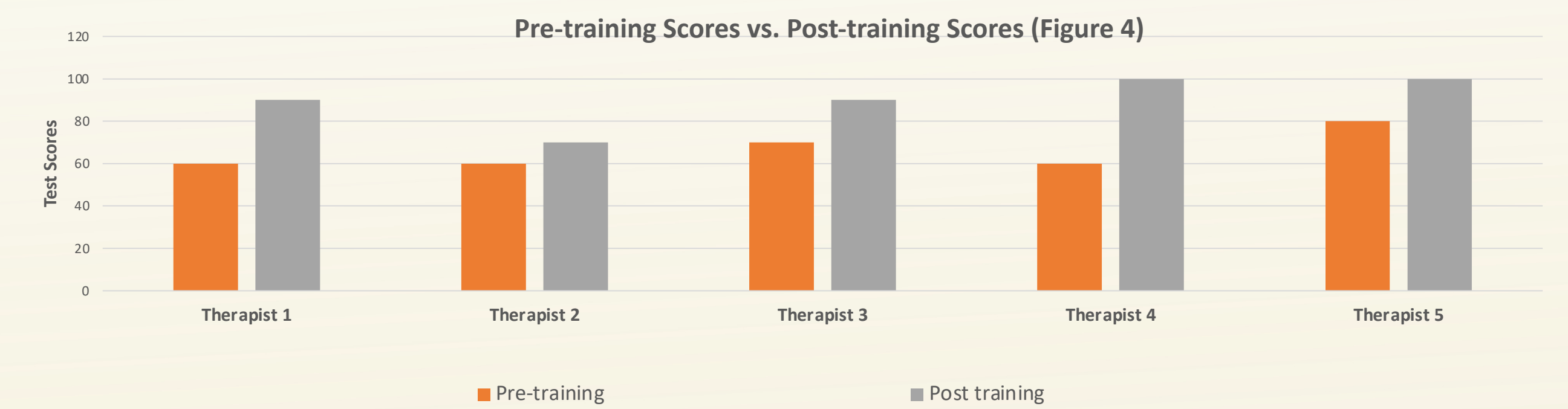


Figure 3B

Results Cont.

Pre-test versus Post-test Scores

The mean pre-test score was 66 with the mode being 60, max of 80 and min of 60. The mean post-test score was 90 with the mode being 90, max 100 and min of 70. After completion of the training, 100% of the participants' scores improved from their pre-test score to their post-test score (Figure 4). The mean increase in scores was 24.



Themes from open-ended question responses

Overarching themes found in participants' open-ended responses included confidence and comfort in using a mat assessment as part of their wheelchair evaluations and their experiences with previous, current, and future training on this topic (Table 1).

Qualitative Results of the Pre-Survey and Post-Survey (Table 1)	
Theme 1: Confidence/Comfort Using a Mat Assessment	Theme 2: Previous and Current Training
Pre-Survey: <ul style="list-style-type: none">Not ConfidentDo not feel comfortableDo not know exactly what measurements I should take	Pre-Survey: <ul style="list-style-type: none">No previous training on mat assessmentsShown only a few basic measurements in school, not shown mat assessmentHave never taken continuing education courses or formal trainings
Post-Survey: <ul style="list-style-type: none">Much more ConfidentFeel like I know what steps to take nowUnderstand what measurements are needed and why	Post-Survey: <ul style="list-style-type: none">Printed Handouts will be a great guideThe review helped me feel more comfortableStep-by-step instructions will help greatly

Conclusion

Overall, this project met the goals that it set out to accomplish. The training was able to improve the therapist's knowledge, self-efficacy, and comfort in using a mat assessment as part of their wheelchair evaluations. Results support these improvements by showing increases in scores from the pre-test to the post-test. Participants also expressed improvements in feelings of confidence, comfort, and overall self-efficacy in their ability to incorporate mat assessments into their wheelchair evaluations after completion of the training. Limitations of this study include a small sample size therefore generalization is not recommended. Expanding this study to larger groups would be beneficial to be able to generalize the results. Continuation of this project could also include following up with participants to determine how many of them began to incorporate the mat assessment into their wheelchair evaluations and how often. Also, participants recommended the inclusion of videos to increase the effectiveness of the training and to help improve understanding as it is not an in-person training.

Significance of the Project to Occupational Therapy

- As the literature has shown issues with training on mat assessments are one reason therapists name for not using them
- If this project can help more therapists learn how to and feel more confident in completing a mat assessment we should see an increase in therapists using them in their wheelchair evaluations
- The more mat assessments are used the more therapists will be able to provide residents with appropriate wheelchairs and equipment.
- Long term this should result in improvements in seating and positioning for residents as well as reductions in falls from wheelchairs, decreased wounds, and pressure ulcers.

References

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