



# Constraint-Induced Movement Therapy Administrated to Adult Individuals with Disabilities According to the Model of Human Occupation Framework

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## Introduction

- Constraint-induced movement therapy (CIMT) involves three main elements: 1) repetitive task-specific training; 2) a group of behavioral strategies called the transfer package; and 3) encouraged use of more affected upper extremity (UE) during waking hours and constraining the less-affected UE as a visual reminder when necessary.<sup>1</sup>
- The Model of Human Occupation (MOHO) provides a wide scope of an integrative view of occupation and an explanation of how human occupation is motivated, patterned, and ultimately performed.<sup>2</sup> Volition, habituation, and performance skills are principles utilized to determine the client's barriers and develop an intervention that is meaningful for progression of the client.<sup>3</sup>
- Research determining the relationship between the CIMT intervention and the MOHO framework is currently limited. The purpose of this study was to develop a framework for the application of CIMT through the lens of the MOHO framework for utilization by occupational therapists.

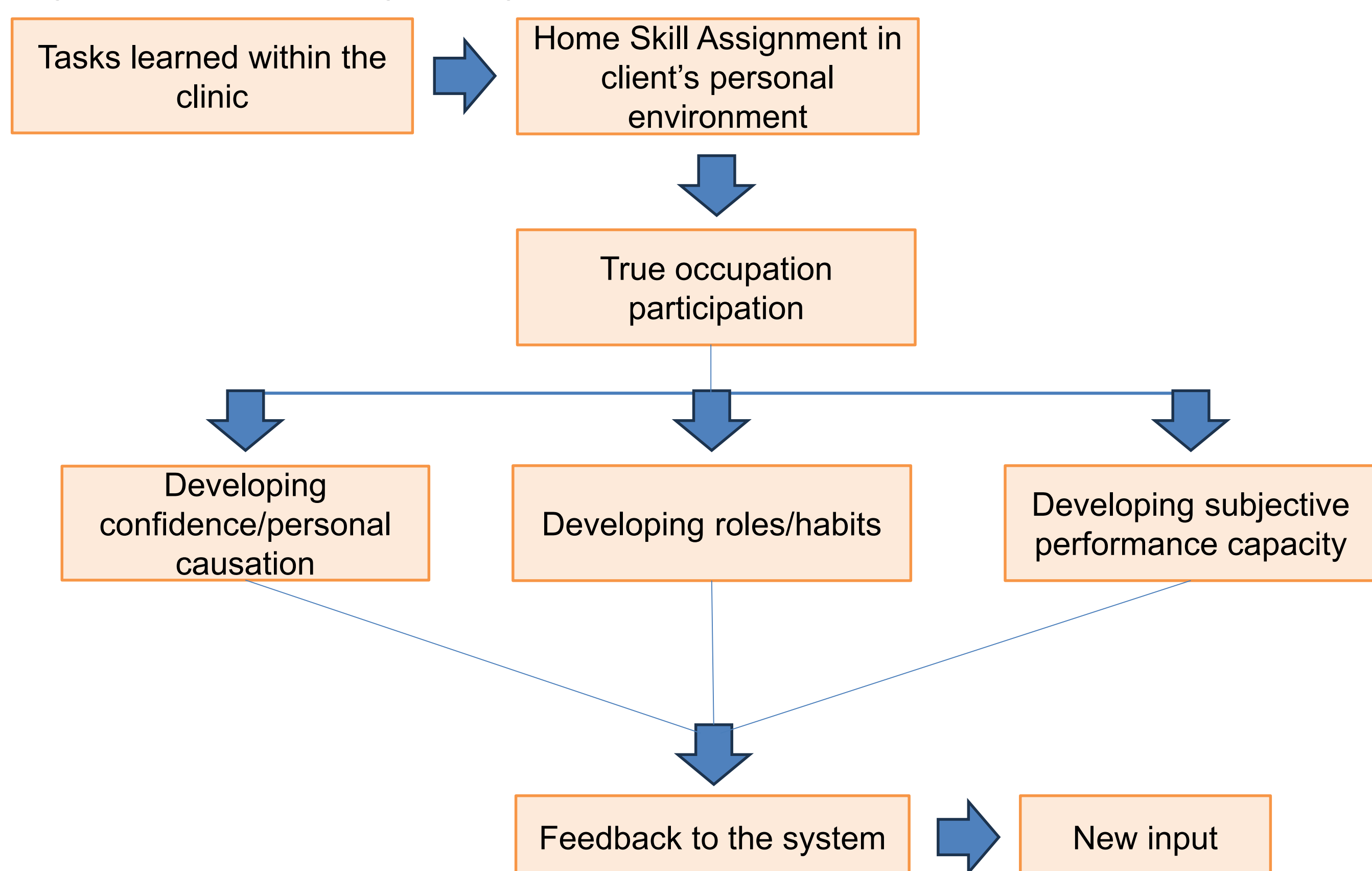
## Methods

- Data were collected through an in-depth interview with one expert in CIMT and one expert on MOHO to address common themes.
- Interviews were audio recorded and transcribed verbatim; common themes were identified to develop the framework.
- All results were discussed in detail, and a framework for future reference and use by occupational therapists within their practice was created according to each element of the CIMT protocol.

## Results

- The components of the CI therapy protocol were discussed using the MOHO framework based on the idea that the MOHO is an open system, and each component is interconnected. One element of the model can change, and that action will resonate for a whole system.
- True occupational participation takes place within the personal environment of the client. Once the client begins this with the transfer package, positive feedback to the system is developed through each element of the MOHO (Figure 1).

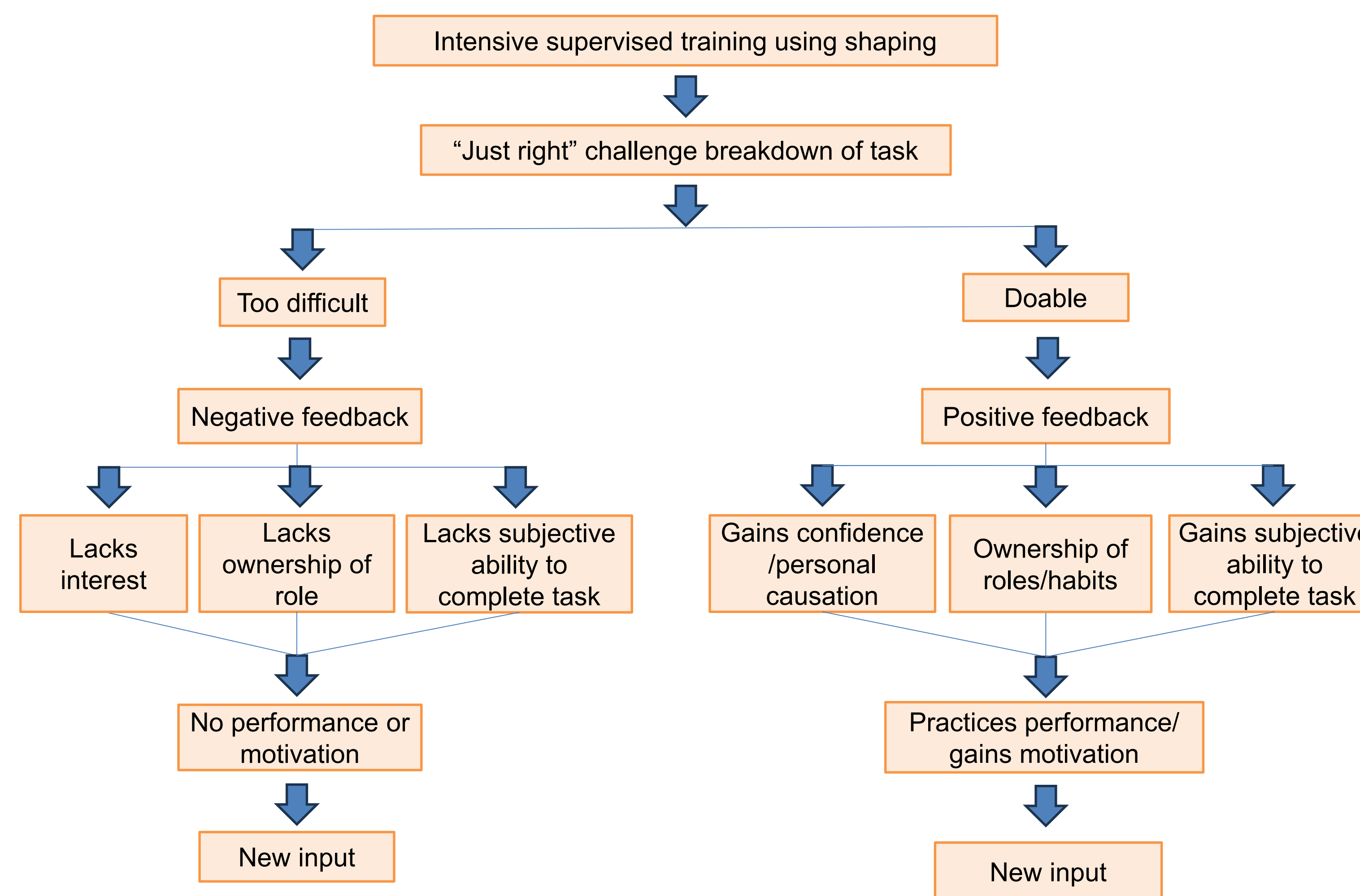
Figure 1: Transfer Package through MOHO perspective



## Results (cont.)

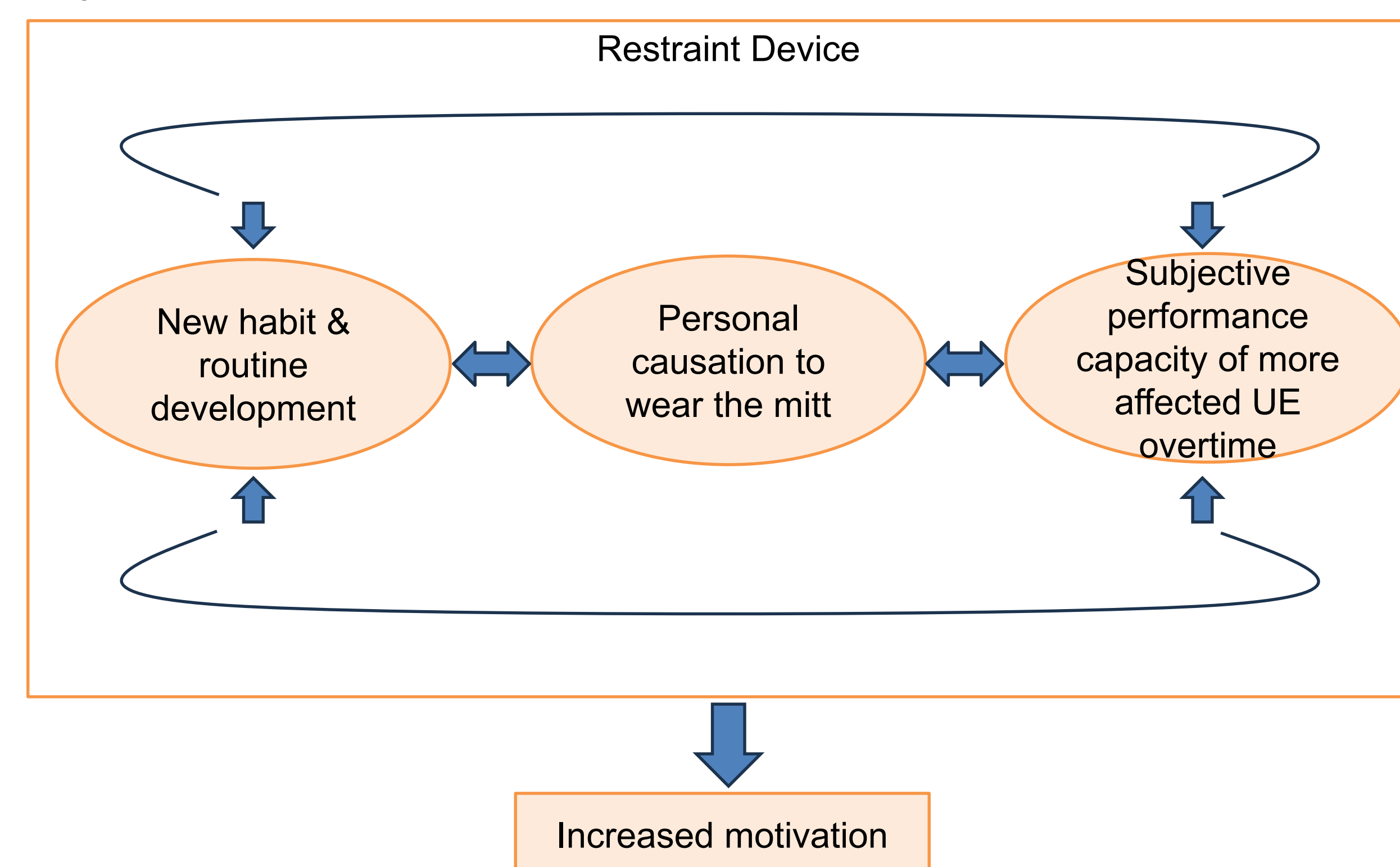
- The breakdown of shaping is determined by the "just right challenge" of not making a task too difficult, but difficult enough for the client to improve on the task. Depending on the performance of the task used in shaping, the client will receive positive or negative feedback that will affect their personal motivation to improve or disengage (Figure 2).

Figure 2. Intensive supervised training using shaping



- The client must be motivated to wear the restraint device to complete this step of the protocol. Each element of the MOHO is interconnected to increase use of the restraint device (Figure 3).

Figure 3: Restraint device



## Discussion

- Each component within the CIMT protocol can be driven by the elements of the MOHO framework for optimal client-centered results. Understanding the motivation behind what drives an individual will deem significance within the rehabilitation process and implementing interventions that remain client-centered.
- The concept of utilizing an occupational therapy model within the intervention should be regularly utilized to increase the occupational independence of the client.
- This study has limitations because the framework was developed based on findings within the literature, as well interviews with experts, but no physical implementation was done to provide physical results.
- Future research may include the implementation of the MOHO into the CIMT protocol within a pilot study, followed by a randomized controlled trial.

## Conclusion

- Occupational therapists will lead interventions that are meaningful to the client if the occupational therapist understands the motivation behind the task.
- The implementation of the MOHO when conducting the CIMT protocol will increase client-centered practice provided by occupational therapists.
- The implementation of occupational therapy theories/models should be further reviewed to improve client-centered interventions given by occupational therapists.

## References

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