

# Quick Review of Model System Research

### Feasibility of a Kinect-based rehabilitation strategy after burn injury

### What is the study about?

Interactive video games have the potential to play a positive role in the rehabilitation of burn patients. This study attempts to determine the feasibility of a set of Jintronix games, which combines therapy specific software and interactive gaming as a form of coaching for adult burn patients.

### What did the study find?

The Jintronix software has the potential to assist burn patients with rehabilitation. The software demonstrated an acceptable level of safety in the inpatient setting. Moreover, participants responded to the software positively, reporting improved strength, range of motion, and that the activities were fun and easy to use. This study has also laid the groundwork for a potential randomized control trial that would validate the Jintronix software in a home environment.

### Who participated in the study?

Twenty adult burn patients were recruited for this study. Burn size did not affect eligibility for inclusion. Participants were recruited from a single regional burn center between August and November 2016.

### How was the study conducted?

Participants were asked to complete six interactive modules and one functional assessment. Each module was tailored to the burn site(s) of the participants involved. After each session, participants were asked to provide feedback through a survey. A content analysis was then used to identify patterns across participant responses.

### [How can people use the results?](file:///C%3A%5C%5CUsers%5C%5Cccai%5C%5CAppData%5C%5CLocal%5C%5CMicrosoft%5C%5CWindows%5C%5CTemporary%20Internet%20Files%5C%5CContent.Outlook%5C%5C4WHR71C4%5C%5CBogner_CER-1403-13476_DFRR_Professional%20and%20Public%20Abstract_SME%20Review_102918%20ccai.docx%22%20%5Cl%20%22Note%22%20%5Co%20%22Describe%20who%20could%20use%20the%20results%20and%20how.%20Could%20be%20patient%2C%20doctor%2C%20administration%2C%20centers.%20Should%20make%20sense%20given%20findings%20and%20study%20design.%20Do%20not%20overreach.)

Practitioners and burn patients can use these results to help inform decisions around making therapy specific game software part of rehabilitation.

### [Reference](file:///C%3A%5CUsers%5Cccai%5CAppData%5CLocal%5CMicrosoft%5CWindows%5CTemporary%20Internet%20Files%5CContent.Outlook%5C4WHR71C4%5CBogner_CER-1403-13476_DFRR_Professional%20and%20Public%20Abstract_SME%20Review_102918%20ccai.docx#Note)

Pham, T. N., Wong, J. N., Terken, T., Gibran, N. S., Carrougher, G. J., & Bunnell, A. (2018). Feasibility of a Kinect®-based rehabilitation strategy after burn injury. Burns, 44(8), 2080-2086. doi:10.1016/j.burns.2018.08.032. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/30241787>

### Disclaimer

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