

Capstone Project Scholarly Paper

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OT 6923: Occupational Therapy Doctoral Capstone Project

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Introduction

Individual compliance with self guided exercise programs is an integral component in the success of outcomes. Nonadherence to these programs however, remains a significant issue. With an estimated compliance rate of only 50%, low levels of exercise compliance can produce a host of negative outcomes for the individual (Lang., 2022). With multimedia becoming more accessible due to the increased prevalence of smart mobile devices, video based exercise programs may be a more effective alternative to conventional methods historically utilized in increasing exercise program adherence. (Chung et al., 2020) suggests that the increase in self efficacy which video based exercise programs provide is directly related to an increase in adherence to said program.

Processes/ Methodology

By providing members of a community fitness center with personalized video based exercise programs tailored to their fitness level, level of ability, or limitations due to diagnoses, increases in overall client self efficacy, confidence, and overall relative mastery of their exercise regimen were demonstrated. Participants were provided a pre and post-test survey to assess overall need. Routine in person meetings with participants, gym staff, and agency mentor were also conducted to further identify need and the data collected was utilized to continually update the exercise catalog with further exercise programs to ensure success of the participants. The weekly attendance of gym community members was tracked through the digital sign in feature available on the virtual training app provided to them. An educational handout was created upon program completion for personal trainers tasked with maintaining the virtual training app at Fitness Project to ensure a smooth transfer and continuation of the program

Outcomes

An increase in mean scores of 25 to 36 out of a total of 45 points using a modified WHO Quality of Life Brief Scale were recorded at the completion of the program. Additionally, 83% of members reported a perceived increase in self efficacy in relation to exercise program competence and success. Finally, there was a 90% increase in weekly exercise frequency of members reflected through virtual fitness app data log.

Conclusion

In conclusion, the outcomes of the program imply a substantial benefit with regards to the use of video guided exercise programming in improving adherence and providing patients and clients with increased options for method of program delivery. The virtual program's ability to cover a wide range of deficits from lower general fitness levels to advanced diagnoses and reflect appropriate exercise programming for each population was a key contributor in its success but additionally was the most challenging aspect to address. Regular meetings with participants had to be conducted to continually address the needs identified and update the app with new programming in a timely manner. Factors such as member's intrinsic motivation, ability to attain reliable transport to commute to fitness club, and fluctuating energy levels due to diagnoses remain barriers to improvements in exercise frequency. Further research over a longer period of time with the use of more standardized methods for capturing exercise adherence is needed.

References

Lang, S., McLelland, C., MacDonald, D., & Hamilton, D. F. (2022b). Do digital interventions increase adherence to home exercise rehabilitation? A systematic review of Randomised Controlled Trials. *Archives of Physiotherapy, 12*(1).

<https://doi.org/10.1186/s40945-022-00148-z>

Chung, B. P., Chiang, W. K., Lau, H., Lau, T. F., Lai, C. W., Sit, C. S., Chan, K. Y., Yeung, C. Y., Lo, T. M., Hui, E., & Lee, J. S. (2020). Pilot study on comparisons between the effectiveness of mobile video-guided and paper-based home exercise programs on improving exercise adherence, self-efficacy for exercise and functional outcomes of patients with stroke with 3-month follow-up: A single-blind randomized controlled trial.

Hong Kong Physiotherapy Journal, 40(01), 63–73.

<https://doi.org/10.1142/s1013702520500079>