



Utilizing Complex Rehabilitation Technology with Disabled Veterans

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SETTINGS AND BACKGROUND

Setting

- Location: Central Alabama Veterans Health Care System, East Campus, Occupational Therapy Dept.
- Time: January 18, 2021- March 8, 2021

Background

Complex Rehabilitation Technology (CRT) is among the newer and more innovative interventions utilized by occupational therapist in mobility application for disabled veterans. Complex Rehabilitation Technology applies to personally crafted manual or power wheelchair systems, adaptive seating systems, alternative positioning systems, and different mobility devices accompanying the associated services (Sparacio et al., 2011). With the professional knowledge and training of occupational therapists in CRT, disabled veterans can enhance their social participation, improve their occupational-based function, and ultimately improve their quality of life.

PIO QUESTION

Can complex rehabilitation technology (CRT) enhance social participation, enable occupations, and increase the quality of life in disabled veterans?

SIGNIFICANCE

- Musich (2017) discovered about thirty percent of the older adult society is affected by mobility limitation.
- Upholds occupational therapy's distinct value regarding advancement of health and quality of life by enabling involvement in meaningful occupations, for clients receiving skilled services for CRTs (AOTA, 2016).
- Notable improvements in power wheelchair users' occupational performance, personal competence, self-esteem, and adaptability (May & Rugg, 2010).

LITERATURE REVIEW

Utilizing powered mobility devices as an intervention can effectively improve other valued occupations in disabled veterans in the older adult population. Thus, complex rehabilitation technologies should be considered as an intervention for disabled veterans and older adults. Fomiatti (2013) suggests that powered mobility devices can greatly impact life quality, improving one's self-esteem, freedom, and confidence. Patients who utilize CRTs can return to their prior occupations and enable their desired task. Widehammar (2019) proposes that when environmental barriers are reduced, people with disabilities will see improvements in social participation and vocational aspect of their life. Power wheelchairs can enable older adults or veterans to participate in social gatherings and enhance their quality of life.

METHODS

This client-centered project was developed by an occupational therapist utilizing CRT as an intervention. The capstone project targeted disabled veterans with decreased mobility, looking to be assessed for a complex rehabilitation device to improve their quality of life.

Participants

This project involved two disabled veterans as the main participants. Each veteran has a disability that warrants the use of a CRT. This project targeted disabled veterans whose injury impacted functional mobility, social participation, and quality of life.

Design

The project is client-centered, evidence-based, and utilized the Person-Environment-Occupation (PEO) Model. The PEO Model was formed for the person and their environments and occupations interacting dynamically over time (Maclean, 2012). The capstone project will capture the function of the veteran through pre/post-questionnaires. The questionnaires were administered before and after obtaining the CRT.

Outcome Measure

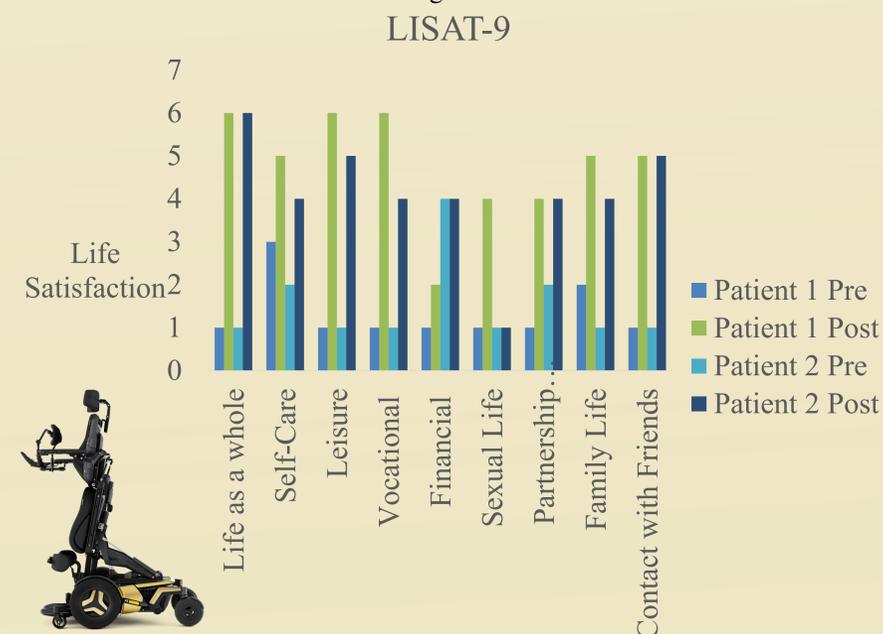
Both veterans' quality of life was measured by applying the Life-Satisfaction Questionnaire-9, LISAT-9, as a pre and post outcome measure simultaneously with the QUEST 2.0 to assess their overall satisfaction with the CRT.

Limitations

The limitations experienced during this project was a decrease in disabled veteran participation due to delivery of the chair, a small sample size, and new onset of a medical conditions.

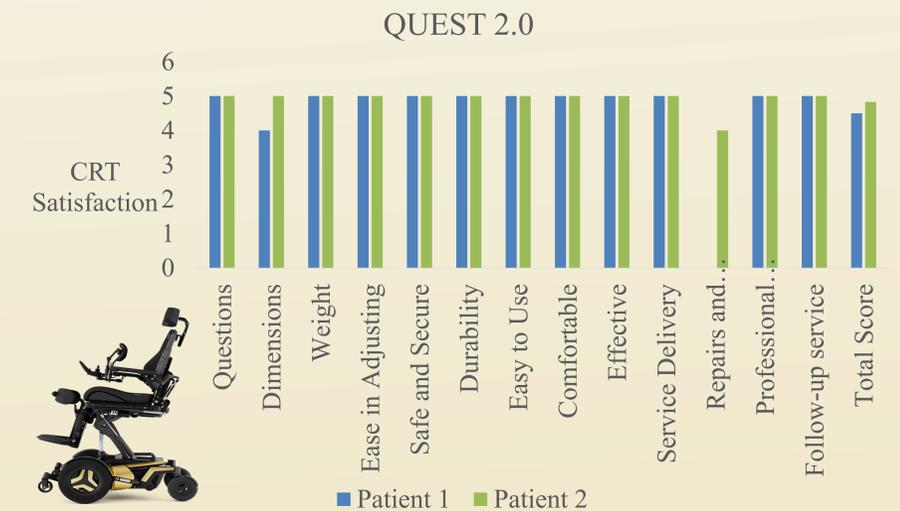
RESULTS

The graph below shows the pre and post result for the LISAT-9. These results displayed each veteran was not satisfied with their family life, leisure activities, and contacts with friends before obtaining the CRT. However, the post-questionnaire indicated a significant increase in life as a whole, leisure activities, and contact with friends while utilizing the CRT.



RESULTS CONT.

The Quest 2.0 show the essential satisfaction item that Patient 1 and 2 was how easy the CRT is to use. The total Quest score provides evidence that both patients were quite satisfied with the CRT. Each patient reported an increase in quality of life since obtaining CRT. Patient 2 provided a written letter that stated his improved quality of life while using the CRT. The letter stated, "I would like to thank you for assisting me to attend my daughter's wedding. I was able to walk my beautiful daughter down the aisle on her special day. Also, I am now able to attend some family functions when my health permits."



SUMMARY

In summary, this capstone project indicates that both veterans who utilized the CRT have increased quality of life, social participation, and occupational-based engagement. This project successfully provided the participating veterans an opportunity to improve their quality of life and social participation using the prescribed CRTs to engage in meaningful and purposeful activities. This capstone's results provided a need for future projects to be implemented utilizing complex rehabilitation devices and disabled veterans.

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