



USE OF THE CANADIAN OCCUPATIONAL PERFORMANCE MEASURE FOR A PATIENT WITH GUILLAIN BARRE SYNDROME: A CLIENT CENTERED OCCUPATIONAL THERAPY PROGRAM

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ABSTRACT This study was conducted on a single client diagnosed with Guillain Barre syndrome. The Canadian Occupational Performance Measure was used to identify areas of function where the client sought independence. A rigorous Occupational Therapy regimen was provided for 6 months comprising of strengthening exercises, improvement of hand functions and balance and gait. The assessments performed at 3 months and 6 months showed significant improvements in the client's physical and functional status.

KEYWORDS : Canadian Occupational Performance Measure, Guillain Barre Syndrome, Client-centered Approach

Guillain-Barré syndrome (GBS) is a rare neurological disorder in which the body's immune system mistakenly attacks part of its peripheral nervous system—the network of nerves located outside of the brain and spinal cord. GBS can range from a very mild case with brief weakness to nearly devastating paralysis, leaving the person unable to breathe independently. Guillain-Barré syndrome can affect anyone. It can strike at any age (although it is more frequent in adults and older people) and both sexes are equally prone to the disorder. GBS is estimated to affect about one person in 100,000 each year. The exact cause of GBS is not known. Researchers don't know why it strikes some people and not others. It is not contagious or inherited.

What they do know is that the affected person's immune system begins to attack the body itself. It is thought that, at least in some cases, this immune attack is initiated to fight an infection and that some chemicals on infecting bacteria and viruses resemble those on nerve cells, which, in turn, also become targets of attack. Since the body's own immune system does the damage, GBS is called an autoimmune disease (“auto” meaning “self”). Normally the immune system uses antibodies (molecules produced in an immune response) and special white blood cells to protect us by attacking infecting microorganisms (bacteria and viruses). In Guillain-Barré syndrome, however, the immune system mistakenly attacks the healthy nerves.

Most cases usually start a few days or weeks following a respiratory or gastrointestinal viral infection. Occasionally surgery will trigger the syndrome. In rare cases vaccinations may increase the risk of GBS. Recently, some countries worldwide reported an increased incidence of GBS following infection with the Zika virus. In the past 15 years a broad spectrum of inflammatory demyelinating polyradiculoneuropathies has been identified. GBS, or acute inflammatory demyelinating immune-mediated polyneuropathy, is the most common form of the disease. GBS affects nerve roots and peripheral nerves, leading to motor neuropathy and flaccid paralysis with possible sensory and ANS effects. Purely motor forms and mixed motor and sensory forms of GBS have been identified. Unlike ALS, GBS usually has a good prognosis, with most patients returning to their prior functional status by 1 year after onset. Epidemiological studies show that males are affected by GBS twice as often as are females.

Clinical Presentation:

GBS in both children and adults is characterized by a rapidly evolving, relatively symmetrical ascending weakness or flaccid paralysis. Motor impairment may vary from mild weakness of distal lower-extremity musculature to total paralysis of the peripheral, axial, facial, and extraocular musculature. Severe fatigue is present in 38% to 86% of patients with GBS, depending on the cut-off point used to define severity and the age of the sample, with a positive correlation between severe fatigue and age. Tendon reflexes are usually diminished or absent. Twenty percent to 38% of patients may require assisted ventilation because of paralysis or weakness of the intercostal and diaphragm musculature. Impaired respiratory muscle strength may lead to an inability to cough or handle secretions and to decreased vital capacity, tidal volume, and oxygen saturation. Secondary complications such as infections or organ system failure leads to death in approximately 5% of patients with GBS. Approximately 35% to 50% of patients develop some cranial nerve involvement, primarily facial muscle weakness, although patients may also develop oropharyngeal and oculomotor involvement. ANS symptoms are

noted in approximately 50% of patients. Low cardiac output, cardiac dysrhythmias, and marked fluctuations in blood pressure may compromise management of respiratory function and can lead to sudden death. Other typical ANS symptoms may result in peripheral pooling of blood, poor venous return, ileus, and urinary retention. Sensory symptoms such as distal hyperesthesias, paresthesias (tingling, burning), numbness, and decreased vibratory or position sense are common. The sensory disturbances often have a stocking-and-glove pattern rather than the dermatomal distribution of loss. Although the sensory problems are seldom disabling, they can be disconcerting and upsetting to patients, especially during the acute stage. Pain was identified as a significant presenting symptom reported in the original articles describing GBS.

This article describes a single case study conducted with once person with Guillain Barre Syndrome and details his experiences in a function based, client-centered Occupational Therapy intervention. The findings highlight how the provision of choice and opportunity for participation in meaningful occupation resulted in an enhanced sense of self and wellbeing, a sense of personal accomplishment, and a substantial improvement in the physical status of the person.

Client-centered occupational therapy is a kind of partnership between the client/patient and the therapist, which allows empowerment of the patient to engage in functional performance to fulfil his/her occupational roles in a variety of environments. Philosophy of client-centered therapy includes empowerment and guiding of patients to achieve a cure by means of a balance of power between the therapist and patient. In this approach, the therapist acts as an educator. Thus, sufficient information and communication skills are needed to scrutinize the treatment. Expectations and targets are achieved together with the patient. When a client-centered approach can be administered completely, the patient makes decisions alone based on his/her targets. In addition, the power is transferred from the therapist to the patient. In such a case, the therapist supports the decision-making period of the patient and accepts his/her decisions.

The Canadian Occupational Performance Measure (COPM) is a client-centered outcome measure that allows patients to evaluate their occupational performance and satisfaction with the performance in the areas of self-care, productivity, and leisure activities. However, majority of the studies have been designed to analyse the application of client-centered occupational therapy and/or COPM from therapists' perspectives, while few studies have focused on patients' views.

Literature review:

A study conducted by Kwang-Jun Ko, Gi-Chul Ha, Seol-Jung Kang studied effects of daily living occupational therapy and resistance exercise on the activities of daily living and muscular fitness in Guillain-Barré syndrome. This study suggested that daily living occupational therapy and resistance exercise are effective in improving the activities of daily living and muscular fitness in a patient recovering from Guillain-Barré syndrome.

The study conducted by Machiko R. Tomita; Kathryn Buckner; Sumandeep Saharan; Kimberley Persons; Sheng Hui Liao studied the effects of an extended Occupational Therapy Reintegration Strategies for a Woman with Guillain-Barré Syndrome. Holistic occupational strategies helped the client stabilize the patient's emotional state, create

a safe home environment, improve her communication method, increase physical activity, and promote social participation.

In Shavaughn Ashley Nikita Brooks's study titled 'Inside Guillain-Barré Syndrome: An occupational therapist's perspective', the author offered insight into the first hand experience of a person suffering from GBS and the OT interventions available for its rehabilitation.

In the study conducted by Catherine Donnelly; Colleen O'Neill; Martha Bauer; Lori Letts, titled 'Canadian Occupational Performance Measure (COPM) in Primary Care: A Profile of Practice' it was concluded that the COPM is an invaluable tool to guide initial assessments and offer an occupation-focused lens.

Participant:

The client was a 35 yr old male patient diagnosed with GBS 4 months before the Occupational therapy sessions were started. He was completely bed-ridden and dependent on his wife for all his basic Activities of Daily Living. The Canadian Occupational Performance Measure was used to delineate the activities of daily living that were perceived as important by the client. The client identified Personal care and Productivity as the main areas of his focus for the rehabilitation program.

The therapy was given for 5 days a week, for 1 hour each day. The therapy comprised of upper and lower limb strengthening, core strengthening, hand function training, balance training, gait training. The program was continued for 6 months.

Data collection:

The data was collected by interview method using the Canadian Occupational Performance Measure at the start of the program, at 3 months and after 6 months of the program. Along with the COPM, the client's physical status was also evaluated through range of motion evaluation, individual muscle testing and endurance testing.

Data Analysis:

The findings reflected the change in the client's status as a result of the rigorous Occupational therapy rehabilitation process.

RESULTS:

The Canadian Occupational Performance Measure was used to analyse the client's interests and areas of focus. The client identified the Self Care areas especially of Personal care, and Functional mobility as the areas which he wanted to be independent in and the area of Productivity. The evaluation performed at 3 months and at 6 months of therapy showed significant improvement in the client's physical and functional status. The client was able to walk independently without support and perform his activities of daily living independently.

CONCLUSION:

A single case, qualitative study was conducted with one client diagnosed as a case of Guillain Barre syndrome. The findings support current occupational therapy beliefs and theoretical frameworks, specifically an enabling and rigorous occupation approach. The client highlighted several benefits from the rehabilitation program, resulting in an enhanced sense of control of self, a sense of self-worth and an optimism of being back to his prior level of productivity.

REFERENCES:

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