

Part I:

Background Information

Musician Augmentative Communication Case Study

BACKGROUND

“Jack,” a 36 year old musician, sustained multiple trauma from a motorcycle accident, including open comminuted fracture of his larynx, massive destruction to his trachea, tearing of his esophagus and extensive damage to his right arm. He received laryngeal reconstruction immediately after the accident, with further reconstructive surgery planned in approximately six months. Multiple surgeries to his right forearm, wrist and hand also took place in the months after the accident.

Jack has a B.A. degree in Music and Computer Applications for Music Synthesis and, at the time of the accident, was working toward a career in developing sound tracks for films, while also playing drums and singing in a band. He was referred to the Department of Rehabilitative Services in Virginia after his accident. His strong musical and computer skills, as well as anticipated physical capacities, supported continued pursuit of his original goal.

FUNCTIONAL CAPACITIES/LIMITATIONS

Jack owns an automobile and has a valid driver’s license, however, he has performed minimal driving since the accident. He is ambulatory and can perform most activities of daily living, since he has adapted his approach to many activities due to limited function. The following functional capacities are present, although his speech should continue to improve after additional surgery.

Cognition: Per Jack’s report, increased processing time is required, although formal testing has not been performed. During evaluations at the rehabilitation center he was able to follow multiple-step directions without apparent difficulty and presented no problem understanding or performing any tasks presented.

Motor and Sensory: Jack was left-hand dominant prior to the accident, and remains so as his left upper extremity was not affected by the accident. He is still able to write. He has non-functional minimum movement in his right fingers and an inability to supinate his right forearm without moving his elbow medially. He uses the right upper extremity primarily as a functional assist, for holding items in position, etc. He also notes his right upper extremity is constantly cold and he experiences “pins and needles” sensations in this hand. Some improvement may occur with additional hand therapy although medical reports reveal it is not anticipated he will regain significant additional use.

Speech: Jack’s voice is dysphonic, characterized by a hoarse, harsh whisper and low volume, with intermittent episodes of weak phonation. His voice tires over the day and by the end of the day his whisper is weaker and there is little to no intermittent phonation. He has to exert significant effort to speak consistently at an audible level.

Case Study Training Module – Musician

He also has difficulty walking and talking at the same time as he becomes dizzy, due to the effort it takes for him to even whisper audibly.

TECHNOLOGY RELATED RESOURCES

Jack was referred to Woodrow Wilson Rehabilitation Center for evaluation for technology that would reduce the potential for further damage to his voice from speaking and enable him to communicate clearly and functionally while awaiting his surgery to further repair his larynx. He also needed accommodations to enable him to use a computer for vocational pursuits.



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