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**PRE- AND POST-ACCIDENT EMPLOYMENT AND  
EMPLOYMENT-RELATED FACTORS FOLLOWING  
TRAUMATIC BRAIN INJURY**

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To David and Aaria Holton, I love you.

## ABSTRACT

A total of forty individuals, from three rehabilitation centres in the Auckland area, participated in an exploratory study on return to work following traumatic brain injury. All of the participants were employed in some capacity prior to their injuries. Eleven of these individuals had not returned to work, and twenty-seven individuals had returned to work post-injury. Twelve of the latter group did not sustain their employment. Data analyses revealed that groups of participants did not differ significantly with respect to self-assessments of pre-injury job satisfaction, job performance, and job importance. However, with respect to post-injury job importance, significant differences were found between individuals who were not employed, those who unsuccessfully returned to work, and those who were currently employed post-injury. Single individuals had higher ratings of post-injury job performance, than partnered individuals. The majority of participants considered emotional support from families important for a successful return to work. Conversely, functional support from employers was considered important by more participants than emotional support. Nine employers of the individuals with traumatic brain injury who were surveyed completed employers questionnaires. The implications of the survey results for the coordination and planning of rehabilitation programmes are explored.

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## **Introduction**

The reintegration, where possible, of brain injured individuals into the workplace is a desirable goal within rehabilitation programmes. Although there is a growing awareness of the disorder known as TBI (traumatic brain injury), there remains a general lack of recognition and understanding of associated symptoms, and consequences among professionals and the general public (Accident Rehabilitation and Compensation Insurance Corporation Report 1998; Morse & Montgomery, 1992). Hallauer (1989, cited in Ninomiya, Ashley, Raney, & Krych, 1995) found a surprising lack of experience with the TBI population among vocational rehabilitation counsellors (VCR). In their study of the experience levels of vocational rehabilitation counsellors, only two out of 46 had experience with more than 100 TBI clients. As can be expected, a lack of experience in the part of such professionals could affect both the process, and outcome, of vocational rehabilitation programmes developed for clients.

TBI is one of the leading causes of death and neurological disorder today (Jacobs, 1988; Stambrook, Moore, Lubusko, Peters, & Blumenschein, 1993). Until as recently as the last decade, accidents involving severe brain injury typically resulted in death. However, continued improvements in medical technology and procedures have contributed to a growth in the population of survivors of brain injury in need of support of various kinds.

Brain injury tends to affect the primary working population, usually males, between the ages of 15 to 60. People with TBI's are at increased risk for unemployment due to the severity of their injuries and associated neuropsychologic impairments. In most modern countries, where employment is central to one's identity, the change in roles, from working to being unemployed, is often a very difficult one for people with TBI.

Resnick (1994) argued that TBI is an international public health issue with emotional, financial, psychological, and social consequences for both the victim and society as a whole. Families are confronted with a potential loss of income and consequent economic downturn, and society must bear the protracted cost of care and

rehabilitation. For these reasons, post-injury employment is considered to be of considerable importance, and return to work following TBI has become a popular focus for research.

A study conducted by Webb, Wrigley, Yoels, and Fine (1995) indicated that employment is the strongest contributor to improved quality of life following TBI. Studies on return to work, have in the main, focused on severe TBI. A few studies have compared mild, moderate, and severe injury groups. As would be expected, severely injured individuals tend to have a poorer prognosis for employment than either mildly or moderately injured people. Mildly brain injured individuals, even though they may continue to report problems throughout their lives, have a higher rate of return to work than other groups. Many are able to perform almost normally under most conditions. However, their behaviour may deteriorate under conditions that would trouble a person without brain injury only slightly.

A number of studies on return to work have found correlations between premorbid factors such as education and employment history, and employment outcomes following TBI (Fraser, Dikmen, McLean, Miller, & Temkin, 1988). Nevertheless, the role of such pre-existing influences is often not taken into account in studies of return to work. Whilst post-injury employment status has been found to be of major importance to TBI survivors and their families, few researchers have studied job satisfaction among survivors who are employed across a range of occupations. Identifying the variables that are associated with job satisfaction following TBI could assist in the development of vocational rehabilitation and increase the likelihood that job placement will result in job retention over time.

Few studies have focused on the effects of social support on functional outcomes following TBI. This is despite the fact that the influence of social support on stress level is well documented (Kaplan, 1990). Attending to the multiple demands of daily living often proves difficult for people with brain injuries. In fact, the behaviour of people with TBI tends to deteriorate under stress or fatigue brought on by the rigours of performing simple everyday tasks. When the stresses of home life spread to work, or from work to home, or in both directions simultaneously, this is referred to as spillover (Bromet, Dew, & Parkinson, 1990). Stressors from the home include the

amount of housework that individuals are responsible for over and above their work outside of the home. It is possible that the problems associated with TBI increase the likelihood of spillover.

It seems likely that receiving assistance with daily chores could reduce the spillover effects of home-work stress for people with TBI. For example, expending less energy on daily chores such as washing, shopping, cooking, and other aspects of daily home maintenance, could reduce the level of stress by preventing individuals from becoming over tired. This, in return, should enhance work performance and job satisfaction.

Having a supportive employer and workplace supervisor or mentor is essential for successful post-injury work reintegration. It is important for employers of TBI individuals to have a good understanding of the long-term problems associated with the condition.

The first two chapters of this thesis will provide a definition and overview of traumatic brain injury including some of its consequences, assessments of outcome, rehabilitation following TBI, and returning to work. These chapters will be followed by an outline of the research reported here, which is aimed at gathering information on factors other than neurological ones, that may influence a return to work among victims of TBI within New Zealand.